

NUCLEAR LAW BULLETIN No. 54

Contents

Detailed Table of Contents

Articles

Case Law and Administrative Decisions

National Legislative and Regulatory Activities

International Regulatory Activities

Agreements

Texts and Reports

Bibliography

List of Correspondents

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Nuclear Energy Agency
Organisation for Economic Co-operation and Development

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This is achieved by

- *encouraging harmonization of national regulatory policies and practices 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*
- *assessing the contribution of nuclear power to the overall energy supply by keeping under review the technical and economic aspects of nuclear power growth and forecasting demand and supply for the different phases of the nuclear fuel cycle*
- *developing exchanges of scientific and technical information particularly through participation in common services*
- *setting up international research and development programmes and joint undertakings*

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FOREWORD

This issue of the Bulletin contains an article on the Nuclear Safety Convention, opened for signature last September and making a further stride in international co-operation in the nuclear field. There were many countries which participated in preparation of the Convention and this demonstrates the international community's determination to provide for a high level of safety in nuclear installations, particularly in Eastern Europe.

The chapter on case law includes an analysis of a decision of the Court of Justice of Ontario on the constitutionality of the Canadian Nuclear Liability Act. This note is followed by two other commentaries: the first concerns a judgment by a United Kingdom court on the THORP nuclear fuel reprocessing plant and the second deals with a recent decision by the European Commission regarding a challenge to its common supply policy for nuclear materials.

Finally, on a more personal note, I have to report that this Bulletin will be the last in which one of its longest-serving editors will be involved. Liane Saad, who is retiring from the Organisation, has many friends amongst Bulletin correspondents and readers, and I felt that an exception to our policy of editorial anonymity was justified in order to enable us formally to recognise her invaluable contribution in helping make the Bulletin what it is today and to express to her our warmest thanks.

Patrick Reyners

DETAILED TABLE OF CONTENTS

	<i>Page</i>
ARTICLES	
The Convention on Nuclear Safety, by Odette Jankowitsch	9
CASE LAW	
<i>CANADA</i>	
Legal challenge to the Canadian Nuclear Liability Act	23
<i>UNITED KINGDOM</i>	
The THORP Case (1994)	34
<i>EUROPEAN COMMISSION</i>	
Common supply policy for nuclear materials (1993)	38
ADMINISTRATIVE DECISIONS	
<i>SWITZERLAND</i>	
Site for a radioactive waste repository (1994)	41
NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES	
<i>ARGENTINA</i>	
Decree reorganising the nuclear sector (1994)	42
<i>AUSTRALIA</i>	
Amendment of the 1987 ANSTO Act (1993)	43
<i>AUSTRIA</i>	
Adaptation of nuclear legislation due to entry into European Union	44
<i>BELGIUM</i>	
Radiation protection and Federal Agency for Nuclear Control (1994)	45
<i>BULGARIA</i>	
Accession to the Vienna Convention and Joint Protocol (1994)	45
<i>DENMARK</i>	
Increase of the amount of compensation (1994)	46
<i>FRANCE</i>	
Decree setting up OPRI (1994)	46
Decree specifying tasks of CEA bodies (1994)	47
Order on accounting of nuclear materials (1994)	47
<i>GERMANY</i>	
Seventh Act to amend the Atomic Energy Act (1994)	48
Reorganisation of the railway system (1994)	49
Second Act on criminal acts against the environment (1994)	49
Foreign Trade Act amendment (1994)	49
Amendment of export and import lists (1994)	50
<i>JORDAN</i>	
Nuclear Energy and Radiological Protection Act (1987)	50

MADAGASCAR	
Decree on protection against ionizing radiation (1993)	51
MEXICO	
Health and safety at work with ionizing radiation sources (1994)	52
Land transport of dangerous materials and wastes (1993)	53
Classification of nuclear articles subject to import/export licensing (1994)	53
NETHERLANDS	
Amendment of Nuclear Energy Act (1992)	53
NICARAGUA	
Act on protection against ionizing radiation (1993)	54
POLAND	
Special control rules for trade in certain goods and technologies (1993)	55
SLOVENIA	
Nuclear third party liability legislation (1994)	55
SWITZERLAND	
Revision of Atomic Energy Act and Order (1994)	57
TUNISIA	
Act and Decree on the National Centre for Nuclear Science and Technology (1994)	57
UNITED KINGDOM	
The Ionising Radiations (Outside Workers) Regulations (1993)	58
Radioactive Substances Act (1993)	58
URUGUAY	
Act on approval of nuclear power plants (1991)	59
Act on radioactive waste (1992)	60
Act on environmental protection (1994)	60
Decree on toxic and dangerous substances (1994)	60

INTERNATIONAL REGULATORY ACTIVITIES

OECD NUCLEAR ENERGY AGENCY	
Meeting on liability issues raised by assistance to Eastern Europe (1994)	61
Bratislava training seminar on nuclear law (1994)	62
Collective expert opinion on radiation protection (1994)	62
INTERNATIONAL ATOMIC ENERGY AGENCY	
General Conference (1994)	63
ARAB ATOMIC ENERGY AGENCY	
Organisation of the Agency (1994)	64

BILATERAL AGREEMENTS

AUSTRALIA/UNITED KINGDOM	
Agreement on former UK nuclear sites in Australia (1993)	65
BULGARIA/GERMANY	
Agreement on co-operation in nuclear safety and radiation protection (1993)	65
DPRK/USA	
Agreed framework between the USA and the DPRK	66
FRANCE/JAPAN	
Agreement on co-operation in the field of radioactive waste (1994)	66
GERMANY/UKRAINE	
Agreement on co-operation in nuclear safety and radiation protection (1993)	66

<i>NORWAY/UKRAINE</i>	
Agreement on early notification and information exchange (1994)	67
<i>SLOVENIA/UNITED STATES</i>	
Agreement on technical information exchange and co-operation in nuclear safety (1993)	67
MULTILATERAL AGREEMENTS	
Status of Nuclear Liability Conventions	68
Status of Tlatelolco Treaty	72
TEXTS	
Agreed framework between the USA and the DPRK	74
REPORTS	
Austria's position on Euratom	76
BIBLIOGRAPHY	
France, Netherlands, NEA, IAEA	82
LIST OF CORRESPONDENTS	85



THE CONVENTION ON NUCLEAR SAFETY

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Foreword

1 The Convention on Nuclear Safety was opened for signature on 20 September 1994 in conjunction with the thirty-eighth regular session of the General Conference of the IAEA. 50 States signed the Convention¹. On 17 June 1994, it had been adopted without a vote by the representatives of eighty-four countries at the Diplomatic Conference convened in Vienna by the IAEA from 14-17 June 1994. The Convention will enter into force on the ninetieth day after the deposit with the Director General of the IAEA of the twenty-second instrument of ratification, including the instruments of seventeen States "each having at least one nuclear installation which has achieved criticality in a reactor core"².

2 The large number of countries involved in this treaty making process reflects the intense international interest for all matters regarding nuclear safety and the willingness of countries both with and without nuclear power programmes to actively contribute to the safety of nuclear power plants wherever they are located.

3 At the present juncture, it is, however, not easy to foresee how soon the Convention will enter into effect. The number of States required for its entry into force (twenty-two) is huge compared to the IAEA's Convention on Early Notification of a Nuclear Accident³ that entered into force thirty days after consent to be bound had been expressed by three States only, the requirement is similar to the Convention on the Physical Protection of Nuclear Material (twenty-one States) but modest in comparison with the forty "other" States in addition to the three Depositaries required by the Treaty on the Non-Proliferation of Nuclear Weapons⁴. Coupled with the requirement that seventeen States must be included in this sum of twenty-two that have at least one operating nuclear plant, the entry into force provision reveals the intention of the drafters in order to be an effective and meaningful instrument, about half of the world's 32 states with nuclear power plants in operation must have expressed their agreement to be bound before the Convention can become operational.

* The author served as Secretary to the Group of Experts on a Convention on Nuclear Safety. The views expressed are those of the author and do not represent those of the IAEA.

The author expresses her appreciation for the constructive criticism formulated by Patrick Reyners and acknowledges with thanks the efforts made by Judy Goodman in the painstaking preparation of the manuscript.

I Introduction and background

4 International law making is rarely attributable to a single factor but frequently enough the decision to prepare a binding instrument is triggered off by major events often a catastrophe perceived *ex post* as having been potentially avoidable by the enactment and enforcement of proper legal norms. Such was the case of the Torrey Canyon oil tanker accident which led to the adoption of several instruments regarding liability and compensation for oil pollution damages the chemical industry accident at Seveso which brought about intensified efforts to develop an instrument on the International Movement of Hazardous Wastes as well as EC Directives on this subject⁵, and more recently the International Civil Aviation Association (ICAO) Convention on Monitoring Plastic Explosives (1991) resulted from "the need for a legal regime" to preclude the recurrence of terrorist acts such as those which took place in 1988 and 1989⁶

As to the nuclear field, it is recalled that in May 1986 the Board of Governors of the IAEA having "considered the recent reactor accident at the Chernobyl Nuclear Power Station and other accidents in the past", and noting "the evident need for greater co operation in nuclear safety" ⁷ decided on the setting up of groups of government experts "to draft on an urgent basis international agreements" regarding early notification and information about nuclear accidents as well as the co-ordination of emergency response and assistance in the event of a nuclear accident. The Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency were thereafter prepared adopted and signed within a few months only

5 As regards the Convention on Nuclear Safety however, it appears to have its political origins and motivation in the intention to prevent rather than cure. In 1990 at a meeting of the policy making organ of the IAEA the Member States of the European Community proposed the convening by the IAEA of an international conference in 1991 on the "Safety of Nuclear Power Strategy for the Future"⁸. It was the intention of the promoters of this initiative that the Conference and its results should be a contribution by the IAEA to the United Nations Conference on Environment and Development (1992 Rio de Janeiro)

6 The Safety Conference, in its "Major Findings" declared that there was "a need to consider an integrated international approach to all aspects of nuclear safety, including safety objectives for radioactive wastes which would be adopted by all Governments", "the Governing Bodies of the IAEA" were requested to organise "the preparation of a proposal on the necessary elements of such a formalised international approach, examining the merits of various options and taking into account the activities and roles of relevant international and intergovernmental bodies and using the guidance and mechanisms already established in the IAEA". The Conference in its final declaration however also recalled that "safety should be primarily enforced at national levels by conscientious application of existing safety principles standards and good practices at each plant and within each regulatory body making best use of national legal frameworks and working practices"⁹

7 Soft law and good practices, a national legal framework and international norms were thereby well described as being the essential co existing components of an international nuclear safety "regime"

8 The thirty-fifth regular session of the IAEA General Conference¹⁰ in September 1991 gave its support to this idea and "noting in particular that the International Safety Conference recognized the potential value of a step-by-step approach to a framework convention for the promotion of an international nuclear safety regime", invited the Director General "to prepare for the Board's consideration in February 1992 an outline of the possible elements of a nuclear safety convention taking into account the activities and roles of relevant international and intergovernmental bodies and drawing on the advice of standing groups like INSAG, NUSSAG and INWAC and also on expertise made available by Member States and competent international organisations"¹¹

9 With this consensus endorsement the stage was set to start preparatory work on the Convention on Nuclear Safety

II Drafting by Lawyers and Technicians The Group of Experts on a Nuclear Safety Convention

10 The resolution of the General Conference did not specify the form or the type of instrument to be established nor did it provide clear indications as to its possible scope and contents. It referred rather to technical bodies, to standing groups of the IAEA and to international organisations that would be competent to give advice, thereby indicating the procedure to be followed and expressing the need to consult all available sources. The mandate of the technical standing groups of the IAEA¹² together with those of the international organisations¹³ having competence in matters of nuclear safety, encompasses however all facets of nuclear safety: the areas covered range indeed from protection of workers from ionizing radiation (International Labour Organisation) and health (World Health Organisation) to the transport of nuclear material, and radioactive waste. The first task of the Director General of the Agency, pursuant to the mandate received from the General Conference, was therefore to find ways and means of defining options and delimiting the possible substance and form of a future Convention. Both legal and technical expertise were required.

11 To fulfil this first task, the Director General convened from 9 to 13 December 1991, an initial group of 36 experts from Member States and competent international organisations (the Commission of the European Communities was invited as a participant, the ILO and the OECD Nuclear Energy Agency as observers), and also included the Chairmen of NUSSAG, INWAC and SAGSTRAM, to advise on the structure and contents of possible elements of an international nuclear safety convention. The Group of Experts elected as its Chairman E. A. Ryder, (UK) Chairman of NUSSAG. It based its discussions on a working paper prepared by the Secretariat as well as on two recent draft Agency documents namely "Safety Fundamentals, The Safety of Nuclear Installations", of 1991¹⁴ and "Draft Safety Fundamentals, The Principles of Radioactive Waste Management, a publication within the RADWASS Programme", also of 1991.

12 The first document, the so-called "Safety Fundamentals", was later accepted by the experts as the main technical reference text for the Convention, in view of the fact that it presented an international consensus on basic concepts for the regulation, management of safety and operation of nuclear installations. It determined the scope and the contents of the Convention. The document on waste management was not used.

The concepts enounced in the "Safety Fundamentals" Document drafted from a national regulatory perspective proved, however, not to be automatically translatable into international treaty language, notably as regards the relation between the responsibility of the operator of a plant and that of the State, Party to the Convention. (An informal working group of lawyers and technicians was set up to translate the Safety Fundamentals into draft Convention language.)

13 In his report to the Director General, the Chairman of the Group of Experts stated that there was a need for an international instrument on nuclear safety and urged that preparatory work for the establishment of such an instrument begin as soon as possible, a decision on the structure of a convention should be taken after agreement had been reached on its scope and contents. The experts considered that the convention should give emphasis to general principles and procedures rather than to technical details regarding nuclear safety.

14 By a decision taken by the Board of Governors in February 1992 in the light of a report submitted by the Director General on the Group's work, a new "open-ended" (i.e. open to all IAEA Member States) group of legal and technical experts was established and entrusted with the task of carrying out the necessary substantive preparations for a Convention on Nuclear Safety¹⁵. The

Group, composed of about 100 experts from 45 countries, the CEC NEA/OECD and ILO, elected as its Chairman Mr Z Domaratzki of the Atomic Energy Control Board of Canada. It took the Group of Experts two years and seven meetings to reach agreement on the substance and form of the draft Convention.

15 From the outset, the experts addressed both the possible form and contents of such an instrument. As to form, the experts "recognized that several types of international instruments could be envisaged"¹⁶. The Agency's Secretariat had initially considered and proposed a framework type Convention¹⁷ - a main general agreement supported by annexes or protocols - covering the different types of nuclear activities - which could be developed either simultaneously or over time. The structure that prevailed and was preferred by most experts - notably from countries with large nuclear power programmes, however, was a single document - without protocols - possibly with an annex only, to be adopted at the same time.

16 As regards the desirable contents, the experts agreed that the "Safety Fundamentals" Document would provide all technical input required. The "elements for inclusion in a Convention" were thus to be drawn essentially from the principles and basic requirements contained therein - a legislative and regulatory framework - the "management" of safety, the technical aspects of safety and verification of safety. The objectives to be achieved by the Convention would also be based on the same source.

- i) a general Nuclear Safety Objective "To protect individuals, society and the environment from harm by establishing and maintaining in nuclear installations effective defences against radiological hazards",
- ii) a Radiation Protection Objective "To ensure that in all operational states radiation exposure within the installation or due to any planned release of radioactive material from the installation is kept below prescribed limits and as low as reasonably achievable - and to ensure mitigation of the radiological consequences of any accidents" and as a main goal
- iii) The Technical Safety Objective "To take all reasonable practicable measures to prevent accidents in nuclear installations and to mitigate their consequences should they occur - to ensure with a high level of confidence that, for all possible accidents taken into account in the design of the installation, including those of very low probability, any radiological consequences would be minor and below prescribed limits, and to ensure that the likelihood of accidents with serious radiological consequences is extremely low"¹⁸

17 The obligations of Parties to the Convention would be derived from these "fundamental" principles - i.e. to establish a legislative and regulatory framework - which should define the discrete responsibilities of the Government, the regulatory body and the operators - to take necessary measures for the education and training of manpower, and for the safety of the nuclear facilities (including matters of siting, design, construction, commissioning, decommissioning) - to require the continued surveillance of the safety of the facilities, to secure the safe operation and maintenance of the facilities - and to take necessary measures for the safe management and disposal of radioactive waste should such wastes be included in the scope of the Convention.

18 It was clear however that a listing of general obligations defined only in terms of principles for the safe operation of nuclear installations would not suffice. If the Convention was to contribute to promoting "the highest level of nuclear safety worldwide" it required a mechanism commensurate with the objectives set out.

The difficulty encountered in devising for the Convention a mode of verifying compliance with the Convention's obligations without introducing at the same time exceptions to the principle that

the safety of nuclear power plants was primarily a question of national responsibility, was resolved with the help of the convincing argument that enlightened self-interest of States in matters of nuclear safety would be stronger than any form of outside control devised under international law. This self-interest would be developed and promoted among the Contracting Parties with nuclear installations, that is the "peer group", peer group "pressure" or "persuasion" would be effective in compelling the Parties to meet their obligations under the Convention, and as a result, improve nuclear safety in all power plants. A "meeting" of all Contracting Parties would be the appropriate method of focusing these "peer group" effects.

The experts also agreed in the context of this approach and in the same spirit, that their objective was to establish a Convention with an "incentive character" to which a large number of States could adhere. The term "incentive", though not defined, was inserted in the Preamble of the Convention, it is not to be understood in a material sense, but rather as synonymous with "encouragement" or "emulation".

19 As to the issue of the scope of the instrument and, accordingly, the elements that would need to be included in addition to reactor safety, it remained open until the last phase of the negotiation process reflecting two main schools of thought - two possible approaches.¹⁹

According to one approach, the Convention would cover all nuclear facilities and activities of the civil nuclear fuel cycle and include the safety of research reactors and the safe management and disposal of radioactive waste. The instrument would be drafted as a framework agreement with annexes or protocols added over time and containing detailed standards. A second view, which was to be the determinant one, gave preference to a unified document, restricted to operating nuclear power plants and based on broad principles.

The first school grouped the countries (mainly European) with few or no nuclear power plants, it also argued in favour of a more detailed, prescriptive form of Convention, some countries expressing the wish for some form of mandatory international safety controls implemented by the IAEA.

20 The second, represented by regulators, nuclear technicians and heads of national authorities of countries with large nuclear power programmes, expressed a preference for a single text without technical annexes, for an incentive-oriented convention that would encourage all countries, including the developing countries and the countries of central and eastern Europe, to strengthen safety programmes and safety culture and for the peer group mechanism described above.

After four meetings of the Expert Group, major disagreements were resolved and compromises accepted. The last three meetings of the Expert Group were therefore able to be devoted to drafting after a compromise text had been established by the Group's Chairman.

III The Convention Its Structure and Contents

21 The Convention on Nuclear Safety consists of a Preamble and 35 Articles, there are no Annexes and no Protocols to the Convention.²⁰ In a style similar to many recent instruments²¹, the Convention opens with a long Preamble containing elements from the "Safety Fundamentals", notably the reference to the environment, as well as language based on resolutions adopted by General Conferences [GC(XXXV)/RES/553, GC(XXXIV)/RES/529]. It also refers to the other conventions relating to nuclear safety adopted under IAEA auspices.²² Preambular paragraphs of an early draft (June 1992) of the Nuclear Protocol to the Draft European Energy Charter are also included.

22 The most relevant elements of the Preamble are its last two paragraphs paragraph (ix) affirms "the need to begin promptly the development of an international convention on the safety of radioactive waste management" and paragraph (x) refers to the "safety of other parts of the nuclear fuel cycle" which "in time" would also be covered by international instruments. These two paragraphs reflect the political compromise reached after protracted negotiations which also included the IAEA Board of Governors, to limit the scope of the Convention to land-based civil nuclear power plants, but to express, at the same time, a commitment to developing an instrument on the safety of waste management as soon as the technical document to serve as substantive backbone of such instrument has been agreed upon. Other parts of the fuel cycle and e.g. research reactors, raising different safety problems which, to some extent are of a more limited national dimension would in the intention of the negotiators also be covered by international instruments to be developed at a later stage.

Paragraph (viii) deserves special mention as it also results from a compromise on whether or not to include reference to the Agency's Nuclear Safety Standards (NUSS) the phrase "internationally formulated safety guidelines which are updated from time to time" is in fact a description of the NUS(S) standards.

Although not in a strict legal sense, the content of these preambular paragraphs recalls the original concept of an international nuclear safety framework built on several successive instruments of a similar nature.

23 In addition to the general premises enumerated in the Preamble the Convention defines three sets of "Objectives" in Article 1 which, as explained above, are based on the "Safety Objectives" of the "Safety Fundamentals" Document²³ (i) General Nuclear Safety Objective (ii) Radiation Protection Objective and (iii) Technical Safety Objective²⁴. In the Convention the first objective set by the drafters is the achievement and maintenance of "a high level of nuclear safety worldwide" adding that this should be carried out by way of enhancement of measures taken at a national level and by "international co-operation including, where appropriate safety related technical co-operation". This requirement was particularly stressed by China and some technologically advanced developing countries.

24 In fact much political negotiation lies behind the language finally adopted in Article 1(i) and in preambular paragraph (viii). Whilst it was generally agreed that international co-operation on nuclear safety should be promoted and that, ipso facto, the Convention would serve this purpose two different views were held as to the need for a specific provision on the transfer of technology through technical co-operation. In the opinion of major OECD countries such provision would create for Contracting Parties an obligation to provide assistance, the additional concern being that international co-operation in nuclear safety could be de-linked from adherence to binding non-proliferation commitments - notably the Non-Proliferation Treaty. In the opinion of most developing countries and China assistance in upgrading nuclear safety through technical co-operation was an essential component of the Convention. The formulation of the objective of the Convention takes this view into consideration without, however creating a separate obligation for bilateral or multilateral assistance.

25 The Convention applies to "the safety of nuclear installations" (Article 3 Scope of Application). "Nuclear installation" is defined in Article 2 to mean "for each Contracting Party any land-based civil nuclear power plant under its jurisdiction" an addition is made as to waste i.e. "storage, handling and treatment facilities for radioactive materials as are on the same site and are directly related to the operation of the nuclear power plant". The definition also clarifies that "a plant ceases to be a nuclear installation when all nuclear fuel elements have been removed permanently from the reactor core and have been stored safely in accordance with approved procedures and a decommissioning programme has been agreed to by the regulatory body". The concept of "jurisdiction" was given preference over the term "location"²⁵. Preambular para (iii)

reaffirms "that responsibility for nuclear safety rests with the State having jurisdiction over a nuclear installation" The location of a plant may, in practice not always be sufficient for defining responsibility, notably in connection with the granting of licence by a regulatory body having the legal authority to do so

26 The question of delineating the responsibility of the operator²⁶ - (the "licence holder" as provided in Article 9 of the Convention) - within an international instrument where by definition, obligations spelled out are entered into by the States Parties to the Convention, is addressed in several provisions of the Convention the Preamble refers to the responsibility for nuclear safety of the State having jurisdiction over an installation, Article 9 provides for the "prime responsibility" of the licence holder²⁷ for the safety of a nuclear installation The "overall responsibility"²⁸ of the State is distinct from the "prime"²⁹ responsibility of the operator as the first establishes the responsibility to take the legislative measures required to ensure that the licence holder meets its responsibility

27 The obligations³⁰ to be undertaken by the Contracting Parties pursuant to the Convention are contained in Chapter 2 Principally these obligations are of two different types (i) the first is a general obligation *de moyens*³¹, namely the requirement to take legislative, regulatory and administrative measures in order to implement its obligations under the Convention, these obligations are categorized as follows

(a) Legislation and Regulation

"Each Contracting Party shall establish and maintain a legislative and regulatory framework to govern the safety of nuclear installations", (Article 7, para 1) including the establishment of applicable national nuclear safety requirements and regulations, a system of licensing, and the prohibition of operating an installation without a licence, a system of regulatory inspection, and the enforcement of the applicable regulations coupled with sanctions which include "suspension, modification or revocation" (para 2) As to the regulatory body, which has to hold the "authority, competence, financial and human resources" to fulfil its responsibilities (Article 8), the Convention provides that its functions should be effectively separated from those of organizations concerned with the "promotion or utilisation of nuclear energy"

(b) General Safety Considerations

Under this title, the Convention groups a number of different obligations the obligation regarding "priority to safety" binding Contracting Parties to establish safety policies, the undertaking that adequate financial resources as well as "sufficient numbers of qualified staff with appropriate education, training and retraining" are available "throughout the life" of a nuclear installation to support the safety of each installation Contracting Parties are also held to "ensure that the capabilities and limitations of human performance are taken into account" - most certainly a modern and unusual treaty provision Of a more common technical nature are the obligations regarding "quality assurance" and "assessment and verification of safety" - to be carried out throughout the life of an installation

Contracting Parties also commit themselves to an obligation regarding radiation protection Article 15 provides that "in all operational states the radiation exposure to the workers and the public caused by a nuclear installation shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits"

Among the few safety-related provisions which are *expressis verbis* addressed to countries with and without nuclear installations on their territory, Article 16 provides for a system of emergency preparedness to be organised and tested by each Contracting Party The concept of

"vicinity" of the nuclear installation with the connotation of proximity or closeness is included here. The same concept is used in the context of the provision regarding the siting of installations (Article 17) where the Convention contains an obligation to consult "Contracting Parties in the vicinity of a proposed nuclear installation, insofar as they are likely to be affected by that installation"

(c) Safety of Installations

This chapter is entirely based on the Safety Fundamentals document ("Technical Aspects of Safety") and covers the obligations of Contracting Parties regarding the nuclear installation itself, rather than the general issues concerning overall nuclear safety matters. In particular, these obligations relate to

- i) the siting of new installations. Article 17 provides for evaluation of "all relevant site related factors likely to affect the safety of a nuclear installation" "the likely safety impact of a proposed nuclear installation on individuals, society and the environment" the need to ensure "the continued safety acceptability" and the obligation to consult Contracting Parties "in the vicinity of a proposed installation",
- ii) design and construction (Article 18) which includes the concepts of "defence in depth" i.e. several levels of protection against the release of radioactive materials into the environment and a "specific consideration of human factors and the man-machine interface", and
- iii) the operation of a nuclear installation (Article 19) covering all of its stages

The second obligation binding upon the States Parties to the Convention is of a different nature from the first set of obligations discussed above. Article 5 (Reporting) creates a reporting requirement linked to an implementation mechanism *sui generis*. States undertake to establish national reports on the measures taken "to implement each of the obligations of [this] Convention" *and* to submit such reports for "review" to meetings of the Contracting Parties.

28 These "review meetings" referred to by the negotiators as "peer" review by analogy to a practice set up a number of years ago by nuclear regulators and other nuclear authorities and technical bodies, notably in the context of the WANO (World Association of Nuclear Operators) and the IAEA, are to be the main innovative and dynamic element of the Convention.

IV The Peer Review Mechanism

29 The Convention provides for "Meetings of the Contracting Parties" in Chapter 3. Articles 20 to 28. These meetings called "Review Meetings" are to be held at intervals not exceeding three years. A preparatory meeting shall be convened no later than six months after entry into force of the Convention, the first review meeting not later than thirty months after entry into force. Rules of Procedure and Financial Rules for the review meetings shall be drawn up at the preparatory meeting.

30 Although the drafters of the Convention appeared to leave much flexibility to the Contracting Parties to determine the general conditions and *modus operandi* of their meetings and avoided the setting up of rigid structures or institutional mechanisms, they provided nonetheless a few clear markings and points of reference specifying their intentions. In fact, the provisions on the review meetings (Chapter 3) contain the most carefully worded language of the Convention. Since the fourth meeting of the Expert Group (May 1993) which reached agreement on the main elements

of the Convention, several proposals³² were made as to the basic concepts of a review mechanism and illustrative examples of its possible operation. The need to further determine the modalities of the review process remained a major concern of the negotiators and led to the adoption of a document attached to the Final Act (see note 18)

This document, which is intentionally attached to the Final Act of the Diplomatic Conference and not to the Convention itself, should provide some guidance on questions where the text of the Convention is silent or not sufficiently explicit. The usefulness of such a document was felt in the last round of negotiations and it became the common denominator for different concerns regarding the national reports, the conduct of review meetings and financial implications for the Contracting Parties and for the Secretariat in implementing the Convention. The main concepts expressed in the "clarification" are: added emphasis on the "national responsibility for nuclear safety", the need for detailed and comprehensive reports to be submitted to and discussed by technical experts, consensus rule for all major decisions, and confidentiality. Furthermore, costs to Contracting Parties and to the Secretariat should be limited.

(a) Pattern of meeting

As described above, Article 21 provides that a preparatory meeting of the Contracting Parties shall be held no later than six months after the date of entry into force of the Convention. No later than thirty months after entry into force the first review meeting is to take place. Although the Parties shall be free to determine the date of the second review meeting, and any meeting thereafter - the Convention provides that intervals between review meetings shall not exceed three years. Article 23 provides that extraordinary meetings may also be convened.

(b) Subject matter of the meetings

In accordance with Article 5, the requirement is to submit in advance of a meeting and for its review, a report established by the Contracting Party "on the measures it has taken to implement each of the obligations of [this] Convention", it being understood *mutatis mutandis*, that certain obligations can only be met by Parties with nuclear installations under their jurisdiction. The preparation, submission and presentation of the national report is the responsibility of the Contracting Party. In preparing the report, or any part thereof, the Contracting Party is however free to request and involve outside expertise be it from other countries ("peer review" in a narrower sense) or from international organisations notably the IAEA.

At the preparatory meeting, the Contracting Parties are to establish the Rules of Procedure and the Financial Rules³³ for the regular review meetings. In this context they will notably address both form and structure - including contents - of the national reports.

After the fifth meeting of the Group of Experts (October 1993) the Chairman of the Group established a small informal group of experts chaired by C. Stoiber (USA) which developed a "conference room" paper containing Draft Rules of Procedure for the review process, elements of a budget for the meeting of Contracting Parties and a scenario on the mechanism of the review process. This paper, which was not further discussed by the Group, will presumably serve as a first input for the preparatory process after entry into force. A few months earlier, upon request by the Director General, INSAG prepared a report on "Basic Concepts and Review Mechanisms"³⁴ of the Convention. The report describes the reporting obligation of Contracting Parties as the "commitment to a process", stressing the national responsibility for preparing the report. INSAG outlines the possible steps leading from a "peer review mechanism on the national level" to the "national report" and the "meeting of the Contracting Parties". This report will probably also be consulted in the preparatory process after entry into force of the Convention.

(c) Modus operandi: The "review" process

At review meetings sub-groups may be established for the purpose of reviewing specific subjects contained in the Reports it is expected that such groups would be set up to discuss matters concerning e.g. the safety of installations (part (d) of Chapter 2), individual questions relating to emergency preparedness for instance (Article 16) or possibly an issue regarding a particular existing installation (Article 6). Reporting and discussion of reports would be protected by the strict confidentiality rules of Article 27, but allow for clarification to be sought and obtained pursuant to the provisions of Article 20, paragraph 3.

(d) Secretariat

The Convention establishes (Article 28) that the IAEA shall provide the secretariat for the meetings of the Contracting Parties. Other services which Contracting Parties may also require in "support" of the review meetings shall equally be provided by the IAEA either in the frame of its regular programme and budget or as separately funded activities.

The Director General of the IAEA shall be the Depositary of the Convention (Article 34).

V Provisions of the Convention regarding disputes, final clauses

31 The Convention provides only for a simple consultation mechanism to resolve possible disputes - referred to as "disagreement(s)" among Contracting Parties concerning the interpretation or application of the Convention. Article 29 provides that Parties "shall consult within the framework of a meeting of the Contracting Parties with a view to resolving the disagreement." The nature of this provision is in keeping with the pragmatic "peer group" approach devised by the negotiators³⁵. Disputes should be settled in an amicable manner within the existing structure i.e. the meeting of Parties and not be brought to any court.

32 No provision is included in the Convention as to reservations³⁶.

33 The Convention is subject to ratification, acceptance or approval by the signatory States after entry into force it is open for accession by all States. As many other recent instruments the Convention also provides for signature or accession by "regional organizations of an integration or other nature, provided that any such organization is constituted by sovereign States and has competence in respect of the negotiation, conclusion and application of international agreements in matters covered by this Convention." Such organizations shall however not hold any vote additional to the vote of its Member States.

Amendments

34 Changes to the Convention can only be made through a stringent formal amendment process laid out in Article 32: proposals for changes are to be considered either at regular review meetings or at extraordinary meetings to be held if so agreed by a majority of the Contracting Parties or at the written request of one Party if such request is supported by a majority of the Contracting Parties. The text of any proposed amendment and the reasons for it shall be communicated through the Depositary to the Contracting Parties. Amendments require consensus. In the absence of consensus a two-thirds majority of the Contracting Parties can decide to submit a proposed amendment to a Diplomatic Conference where in the absence of consensus amendments shall be adopted with a two-thirds majority of the Contracting Parties. Amendments as adopted require ratification, acceptance, approval or confirmation by the Contracting Parties.

Denunciation

35 The Convention is of unlimited duration. However, each Contracting Party has the right to withdraw from the Convention without providing reasons, by way of written notification to the Depository. Denunciation takes effect one year - or later if so specified - following the date of receipt of the notification by the Depository.

VI Internal Application³⁷

36 The Convention provides under Article 4 "Implementing Measures" that "Each Contracting Party shall take within the framework of its national law, the legislative, regulatory and administrative measures and other steps necessary for implementing its obligations under this Convention."

The Convention does not provide for any specific authority, focal point or other national institution to be created for the purpose of its implementation³⁸, nor does it prescribe any specific national law to be adopted³⁹.

Outlook

Despite the apparent technical character of the Convention, the negotiators and drafters have achieved the establishment of an instrument that can be implemented by countries with very different industrial, regulatory and legal systems at different stages of development, and even with widely differing approaches to nuclear power. The first international binding instrument directly addressing the safety of civil nuclear power plants, hopefully, will soon enter into force.

Notes and References

- 1 Algeria, Armenia, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, China, Cuba, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Rep. of Korea, Luxembourg, Netherlands, Nicaragua, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Romania, Russian Federation, Slovak Republic, Slovenia, South Africa, Sudan, Sweden, Syria, Tunisia, Turkey, Ukraine, United Kingdom, United States.
- 2 The Diplomatic Conference was attended by 84 States. Four international organisations attended as observers. The Final Act was signed by 71 States. Convention on Nuclear Safety IAEA INFCIRC/449 Article 31.
- 3 Article 14 in INFCIRC/335. The same applies to the Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency Article 14 para 3 INFCIRC/336.
- 4 NPT, Article IX 2 in INFCIRC/140. Note: The Basel Convention Article (X) also required 20 ratifications. The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction Article XXI required 65 ratifications.
- 5 EC Council Directive 84/631 of 6 December 1984.
- 6 See Contemporary Practice of the United States relating to International Law in American Journal of International Law January 1994 Vol. 88 No. 1, pp. 89-93.

- 7 Decision adopted on 21 May 1986 GOV/OR 649
- 8 Note At the Conference the proposal to establish a Nuclear Safety Convention was made by the Minister for Environment Nature Conservation and Nuclear Safety of Germany Mr Toepfer See Proceedings GC(XXXV)/970
- 9 Ibid
- 10 IAEA GC(XXXV)/RES/553 preambular paragraph (e)
- 11 Ibid paragraph 4 INSAG International Safety Advisory Group NUSSAG Nuclear Safety Standards Advisory Group INWAC International Nuclear Waste Advisory Committee
- 12 SAGSTRAM was added to the listing above (Standing Advisory Group on the Safe Transport of Radioactive Material)
- 13 The following international organisations were invited ILO WHO the NEA/OECD as observers and the Commission of the EC initially as a participant
- 14 The Document was later published in the Safety Series No 50 "The Safety of Nuclear Installations 5 December 1993
- 15 GOV/2567 February 1992
- 16 Report of the "Expert Group on an Outline of the Possible Elements for an International Convention on Nuclear Safety dated 13 December 1991 Unpublished document made available to Members of the Board of Governors at the February 1992 Session (GOV/2567)
- 17 The Director General in his first report to the Board of Governors on the findings of the Group argued in support of a framework Convention allowing for a more comprehensive approach from the outset GOV/2567 implementation of resolution GC(XXXV)/RES/553
- 18 Safety Fundamentals see note 14
- 19 See supra para 15
- 20 The Diplomatic Conference that adopted the Convention also decided to adopt an Attachment to the Final Act entitled "Some Clarification with respect to Procedural and Financial Arrangements National Reports and the Conduct of Review Meetings envisaged in the Convention on Nuclear Safety in Final Act of the Diplomatic Conference 17 June 1994 (INFCIRC/449/Add 1)
- 21 See for instance Vienna Convention for the Protection of the Ozone Layer 1985 Convention on the Transboundary Effects of Industrial Accidents Helsinki 1992 the UN Framework Convention on Climate Change New York 1992 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989
- 22 Convention on the Physical Protection of Nuclear Material 1980 Convention on Early Notification of a Nuclear Accident 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency 1986
- 23 Ibid pages 2 3
- 24 See supra para 15
- 25 The Vienna Convention on the Law of Treaties 1980 provides in Article 29 Territorial Scope of Treaties "unless a different intention appears from the treaty or is otherwise established a treaty is binding upon each party in respect of its entire territory

- 26 Vienna Convention on Civil Liability for Nuclear Damage Convention on Third Party Liability in the Field of Nuclear Energy (Paris Convention)
- 27 The concept of "licence holder" has broader international acceptance than the term "operator" or "operating organisation" used in the "Safety Fundamentals" document and in the Draft Nuclear Protocol of the European Energy Charter the term "operator" is understood in a narrow sense as individual actor in some countries
- 28 Nuclear Protocol (Text Nu8) preambular paragraph (v)
- 29 Ibid para (vi)
- 30 The obligations also include in Article 6 a provision entitled "Existing Nuclear Installations" Although in legal terms all nuclear installations to which the definition of Article 2(i) applies are covered by the Convention ipso facto this provision addresses the need to "review as soon as possible" the "safety of nuclear installations existing at the time the Convention entered into force" The undertaking of the Contracting Parties in this context is "to ensure" "where necessary" that all reasonably practicable improvements are made as a matter of urgency to upgrade the safety of the nuclear installations" The obligation goes further "if such upgrading cannot be achieved plans should be implemented to shut down the nuclear installation as soon as practically possible The timing of the shut down may take into account the whole energy context and possible alternatives as well as the social environmental and economic impact" Worded in a non discriminatory manner this obligation is however clearly directed at the concern for power plants built to and operated under standards that are not in line with the safety requirements of the Convention and are located in central Europe and in the countries of the former Soviet Union
- 31 For general obligations see Convention on the Physical Protection of Nuclear Material Article 3 "Each State Party shall take appropriate steps within the framework of its national laws and consistent with international law to ensure as far as practicable that during international nuclear transport nuclear material within its territory, or on board a ship or aircraft under its jurisdiction insofar as such ship or aircraft is engaged in the transport to or from that State is protected at the levels described in Annex 1" International Convention for the Safety of Life at Sea Article 1 "The Contracting Governments undertake to promulgate all laws decrees orders and regulations and to take all other steps which may be necessary to give the present Convention full and complete effect so as to ensure that from the point of view of safety of life a ship is fit for the service for which it is intended" ICAO Convention on International Civil Aviation Article 37 paragraph 1 "Each Contracting State undertakes to collaborate in securing the highest practicable degree of uniformity in regulations standards procedures and organization in relation to aircraft personnel airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation"
- 32 GOV/INF/723 INSAG prepared a Report dated 9 July 1993 on the proposed Nuclear Safety Convention entitled "Basic Concepts and Review Mechanisms"
- 33 Following the 5th meeting of the Group of Experts an informal Group (chaired by the Expert from the US Mr Stoiber) developed Draft Rules of Procedure for meetings of the Contracting Parties
- 34 Report of INSAG dated 9 July 1993 not published
- 35 The provision of Article 29 "Resolution of Disagreements" is unusual Bilateral agreements sometimes refer to "diplomatic channels" as a means of settlement by negotiations only Most conventions provide for reference to a permanent political or administrative body a court the ICJ or an arbitral tribunal See The Treaty Maker s Handbook op cit Sec 10 pp 117 129
- 36 The Vienna Convention on the Law of Treaties provides in Article 19 "A State may when signing ratifying accepting approving or acceding to a treaty formulate a reservation unless (a) the reservation is prohibited by the treaty (b) the treaty provides that only specified reservations which do not include the reservation in question may be made or (c) in cases not falling under sub paragraphs (a) and (b) the reservation is incompatible with the object and purpose of the treaty

- 37 For variations on internal application clauses see *The Treaty Maker's Handbook* Hans Blix and J H Emerson Dag Hammarskjöld Foundation 1973 Sec 13 p 168 72
- 38 This is the case e g for the London Dumping Convention (Article VI) Basel Convention (Article 5)
- 39 As e g Convention on the Physical Protection of Nuclear Material Article 7 acts "to be made punishable offenses under national law

CASE LAW AND ADMINISTRATIVE DECISIONS

CASE LAW

Canada

LEGAL CHALLENGE TO THE CANADIAN NUCLEAR LIABILITY ACT*

In 1987, legal action was taken against the Canadian federal government challenging the constitutionality of the Canadian Nuclear Liability Act. The action was initiated by a Canadian environmental group, a number of concerned citizens, and the City of Toronto. The case raised a number of issues relating to, among other things, jurisdiction over nuclear energy in a federal political system, the effectiveness of tort liability versus administrative systems in providing compensation, the concept of tort liability as a deterrent to unsafe activities, and the appropriate limitation liability. This commentary describes the action and some of the key arguments that were raised at trial.

Background

Canada is a federation of ten provinces. The respective jurisdiction of the federal government and the provinces is defined in the Canadian Constitution Act, 1867.¹ Under the Constitution, the federal Parliament has the power "to make laws for the peace, order and good government of Canada," except for those areas which fall under exclusive provincial jurisdiction as specified in the Act. Many of these areas of federal jurisdiction are enumerated in the Act, such as defence, postal services, navigation, shipping, railways international and interprovincial undertakings, money banking, and criminal law. Areas of provincial jurisdiction include such matters as natural resources, electricity generation, local works and undertakings, hospitals, education, property and civil rights, the creation of courts and the administration of justice. There are also areas where the federal Parliament and provincial legislatures share power.

Individual rights are guaranteed under the Canadian Charter of Rights and Freedoms, which is part of the Constitution Act, 1982.² These individual rights include, among other rights, the right to life, liberty and security of the person and the right to equality before and under the law.

* This commentary has been kindly prepared by Mr. David McCauley, Advisor, Radioactive Waste and Nuclear Liability, Electricity Branch, Department of Energy, Mines and Resources, Canada, with the assistance of Dr. R. Morrison, Director General of the Electricity Branch and Mr. David Sguyias, Senior General Counsel, Department of Justice.

In the nuclear field specifically the federal government is responsible for the regulation of the Canadian nuclear industry. It also supports nuclear research and development and the marketing of Canadian nuclear technology abroad. Provinces and their agencies, are responsible for decisions relating to the construction and operation of nuclear facilities.

The Canadian Nuclear Liability Act³ (NLA or the Act) was passed by the Canadian Parliament in 1970 and proclaimed in force in 1976. The Act is modelled after the Paris and Vienna Conventions and establishes a comprehensive scheme with respect to liability for injury or damage arising from nuclear incidents.

Operators are absolutely and exclusively liable for damage and personal injury resulting from accidental radioactive releases from their nuclear installations, they are required to carry insurance for compensating third parties who may suffer damage or injury. The limit of the operators' liability is Canadian \$75 million. Claims must be made within three years of discovery of damage or injury or within ten years of the incident. The Act provides for the establishment of a Nuclear Damage Claims Commission in the event of a nuclear incident where claims approach the liability limit or where Parliament considers it in the public interest. Once the Commission is established the federal Parliament may pass regulations for its operations and the handling of claims. With the establishment of the Commission all legal proceedings end and the operator becomes liable to the federal government for claims awarded by the Commission, up to the \$75 million limit. Injured persons make their claims to the Commission and the federal Parliament may authorize payments beyond the \$75 million.

The Act is administered by the federal regulatory agency the Atomic Energy Control Board which, among other functions designates applicable nuclear installations and fixes the insurance that they must maintain. Currently fifteen installations are covered by the Act. No claim has ever been made under the Act.

In March 1987, a lawsuit was commenced in the Supreme Court of the Province of Ontario now known as the Ontario Court (General Division) seeking declaratory relief as to the validity of the greater portion of the provisions of the Nuclear Liability Act. The suit was filed by Energy Probe a non-profit environmental organization, the City of Toronto, and a number of individuals. The Defendant in the action was the Attorney General for Canada. Two Canadian electric utilities Ontario Hydro and New Brunswick Power Corporation intervened to support the legislation.

The trial began in October 1993. The evidentiary portion lasted into the early part of December and involved the testimony of 24 Canadian and international experts in the areas of nuclear liability nuclear safety nuclear regulation emergency preparedness and the costs and benefits of tort liability versus administrative systems. Final arguments were presented in February 1994. On March 23, 1994, the Court issued judgement dismissing the action with Costs.

This commentary summarizes and describes the Plaintiffs' arguments the response of the Defendant to those arguments and the Court's findings on the matters in issue.

The Arguments

In their action the Plaintiffs challenged the validity of the greater part of the Act. Their challenge was based on three principal arguments:

that the NLA is beyond the jurisdiction of the Parliament of Canada as it regulates matters that are under the jurisdiction of the provinces as provided for in the Constitution Act 1867.

- that the NLA reduces the security of the individual by increasing the risk of a severe accident, thereby infringing sections of the Canadian Charter of Rights and Freedoms⁴, and,
- that the NLA reduces the ability of individuals to obtain compensation in the event of a nuclear accident, thereby violating sections of both the Canadian Charter of Rights and Freedoms and the Canadian Bill of Rights⁵

Constitutional Arguments

The Plaintiffs' first argument, based on the constitutional division of powers, was that the principal provisions of the NLA are within the exclusive jurisdiction of the provincial legislatures. The Plaintiffs claimed that the Act relates to property rights, civil rights, and the generation of electricity which are areas reserved for the provinces by Section 92(13) and 92A of the Constitution Act, 1867.

Section 92(13) of the Constitution Act, 1867⁶ provides that matters relating to property and civil rights are within the exclusive jurisdiction of the provinces. The Plaintiffs argued that the primary purpose of the NLA relates to civil liability for nuclear damage, particularly the protection of nuclear operators and suppliers from civil liability, and the compensation and rights of victims of nuclear accidents. They argued that the enactment of legislation altering the traditional civil liability regime is an encroachment on provincial jurisdiction.

The Plaintiffs' argued further that the NLA is legislation concerning the development, conservation, and management of sites and facilities in the province for the generation and production of electrical energy. On this basis, they alleged that the Act infringed upon the exclusive provincial power to legislate with respect to these matters under Section 92A(1)(c).⁷

The Defendant argued that, while the Act affected civil and property rights, the purposes of the Act are to provide financial protection for victims of a nuclear accident and to facilitate the development for peaceful uses of nuclear energy. The development of nuclear energy is an area of national concern that comes within the federal constitutional power to legislate for "the peace, order and good government of Canada" under Section 91 of the Constitution Act, 1867. Federal authority also is founded upon Sections 92(10)(c) and 91(29) of the Constitution Act, 1867 which provide that the federal Parliament has authority to legislate in relation to works that are declared "for the general advantage of Canada". Section 18 of the Atomic Energy Control Act⁸ declares that works and undertakings constructed for the production, use and application of nuclear energy are declared to be for the general advantage of Canada.

The Defendant pointed to the Atomic Energy Control Act and the Nuclear Liability Act as providing the federal regulatory framework for the Canadian nuclear industry. The former seeks to prevent and minimize nuclear accidents while the latter addresses the consequences should such an accident occur. Both are areas of national concern.

The Defendant also argued that the channelling provisions of the Nuclear Liability Act are absolutely necessary to provide for the development of nuclear energy as well as its continued application and use. Without it, contractors and suppliers would be unwilling to become involved in nuclear works. Therefore, in order to foster the development of nuclear energy it was necessary for Parliament to pass legislation in the form of the Nuclear Liability Act.

Charter of Rights Arguments

The Charter issues formed the basis of much of the Plaintiffs' argument and the discussion at trial. Canadian and international experts testified on technical matters such as probabilistic risk assessment, seismic risk assessment, emergency planning, and radiation protection and the *biological effects of radiation*. Experts also testified about economics and law: the relative advantages of tort law versus administrative compensation systems and the effect of liability schemes on levels of care and the extent of use of nuclear energy.

The Plaintiffs argued that the NLA violated the right to life, liberty and security of the person protected by Section 7 of the Charter.⁹ In support of this argument, the Plaintiffs suggested that the NLA artificially decreased the cost of nuclear power and thereby increased its role in utility generation plans. They argued that the full costs of nuclear generation were not being internalized with the result that the cost of nuclear energy appeared more attractive than it actually was. Utilities, therefore, would embark upon more nuclear development than would otherwise be warranted. Because, in the Plaintiffs' submission, nuclear development was inherently hazardous, increased reliance on nuclear power would thereby reduce the security of the person.

On the matter of risk, the Plaintiffs submitted that limited liability on the part of the nuclear industry reduced the level of care taken. Their theory was that only unlimited liability would result in appropriate decisions being made on the level of safety.

This issue attracted considerable evidence and argument. The Plaintiffs called experts in the area of economics and the law to offer opinions on the relationship between tort liability and the level of care. They then called a number of witnesses in various technical areas who challenged safety decisions of the Canadian nuclear operators or the Canadian nuclear regulatory authority with a view to suggesting that the level of care was inadequate and that this reduced level of care resulted from the fact that the operator's liability is limited. Areas that were criticized included emergency planning, Canadian implementation of probabilistic risk assessment, seismic hazard assessment, as well as a variety of other technical issues. The Plaintiffs suggested that if operators' liability were unlimited, operators would receive the proper economic signals on the appropriate level of disbursements on safety and would allegedly increase these expenditures. Thus, in the Plaintiffs' view, limiting the liability of the operator removes the incentive for care and increases risk to the security of the person.

The Plaintiffs also attacked the Act's limits on victims' rights to sue. They claimed that the limits on liability, in monetary and temporal terms, reduced the ability of victims to recover adequate compensation. They suggested this infringed on the individual's right to life, liberty and security of the person. In the view of the Plaintiffs, the system of liability and compensation provided in the NLA did not provide sufficient benefits to balance the limits it put on the existing system of tort liability.

The Plaintiffs also suggested that the NLA violated Section 15 of the Charter which provides that every individual is equal before and under the law and has the right to equal protection and equal benefit of the law without discrimination.¹⁰ The Plaintiffs' argument here was that the limiting provisions of the Act are discriminatory, i.e., they treat victims of nuclear accidents less favourably than victims of other sorts of accidents. The NLA creates a regime where access to the courts may be curtailed once the liability limit of \$75 million is reached or if Parliament otherwise considers it in the public interest to do so. In such a case, an administrative system is established to adjudicate claims. The Plaintiffs claimed that this denial of access to the courts was contrary to the Charter and that the administrative process described in the Act was uncertain, vague and arbitrary.

The Defendant took issue with the Plaintiffs' argument that an increase in the use of nuclear power violated the Canadian Charter of Rights and Freedoms. It was difficult to conceive how an

increase in nuclear development breached the Charter when the existing use of nuclear energy did not

Furthermore, the Defendant argued that the Plaintiffs had not demonstrated that an alternative electricity development scenario would result in less risk to the public. The onus was on the Plaintiffs to prove that the risk of nuclear power was greater compared to alternative sources of energy.

The focus of the Defendant's argument in relation to the Plaintiff's Section 7 allegation on the right to life, liberty, and security, was to demonstrate the weakness of the hypothesis that liability was related to the level of care in the Canadian nuclear industry. Key to the Defence argument in this area was to demonstrate the existence of other incentives for nuclear safety, particularly, the existence of a comprehensive and effective regulatory regime. The Defendant called the Director General of Reactor Regulation from the Atomic Energy Control Board to provide an overview of the Canadian nuclear regulatory regime and address particular criticisms that had been raised by the Plaintiffs. The Chairman of Ontario Hydro, the principal Canadian nuclear utility, was called by the Intervenors to provide an "operator's perspective" on nuclear safety and particularly the various other incentives for care, notably, concern for employee safety, concern for safety of the public, and consideration of the operator's investment in the plant. Both of those witnesses, as well as others, testified that the existence of the NLA had no impact on their safety-related decisions, i.e. the level of care.

On the Plaintiffs' Section 15 argument, that the NLA was discriminatory to neighbours of nuclear installations and to victims of nuclear accidents, the Defendant argued that the Plaintiffs' argument was premature. First, the Charter section could not be invoked to protect a hypothetical class of persons that will only come into existence in the future. Second, the details of the full compensation system provided for in the NLA will only be known once Part II of the Act, which deals with the establishment of a Nuclear Damages Claims Commission, is proclaimed in force. This will only take place once an accident occurs. Experts were called by the Defendant and the Intervenors to give evidence as to the advantages of an administrative system of handling accident claims over the traditional judicial process.

Finally, the Canadian Charter of Rights and Freedoms provides in Section 1 that the rights and freedoms guaranteed by it are subject to reasonable limits.¹¹ The Plaintiffs argued that the purported violations to Sections 7 and 15 of the Charter were not justifiable under Section 1. In the Plaintiffs' view, the objective of the NLA was not sufficiently pressing to warrant the alleged breaches. The Plaintiffs presented evidence on the availability, affordability, and relative safety of Canadian supply and conservation alternatives to nuclear electricity generation.

The Defendant argued that any interference with Charter rights was minimal and warranted. First, the protection for potential victims and the facilitation of nuclear development were pressing issues that warranted the enactment of a scheme such as that provided in the NLA. Second, the NLA was within the legitimate social and economic policy objectives of Parliament and was a measured and balanced means of accomplishing those objectives.

Canadian Bill of Rights

The Canadian Bill of Rights is a statutory predecessor to the constitutional Canadian Charter of Rights and Freedoms and is in some respects quite similar to it. Towards the end of the case, the Plaintiffs amended their Statement of Claim to allege that the NLA violates subsections of Sections 1 and 2 of the Canadian Bill of Rights.

Section 1(a) of the Canadian Bill of Rights sets out the right of the individual to life, liberty, security of the person and enjoyment of property, and the right not to be deprived thereof except by due process of law.¹² The Plaintiffs argued that a nuclear accident would cause tremendous property damage and these effects would be caused without due process of law. Furthermore, they argued that lack of appropriate compensation or an appropriate mechanism for compensation is also an infringement of the due process of law.

Section 2(e) of the Canadian Bill of Rights provides that no law of Canada will deprive a person of the right to a fair hearing in accordance with the principles of fundamental justice for the determination of its rights and obligations.¹³ The Plaintiffs argued that the NLA violates this section of the Canadian Bill of Rights because it fails to provide a right to a fair hearing.

The Defendant's argument on this matter was that the Canadian Bill of Rights does not establish an absolute right to the enjoyment of property. The Bill does not preclude interference with property rights where that is done in accordance with due process of law. The Defendant also argued that the Bill does not preclude the selection by Parliament of non-judicial processes of resolving claims.

The Decision

On March 23, 1994, Justice Blenus Wright of the Ontario Court (General Division) released his decision.¹⁴ He dismissed the Plaintiffs' action and awarded party and party costs to the Defendant and Intervenors.

Re the Division of Powers Arguments

Justice Wright did not accept the Plaintiffs' contention that the main purpose of the NLA is to shield nuclear operators and suppliers from civil liability. He identified the main goal of the NLA as assisting nuclear development.

"The chief purpose of the NLA is to facilitate the development of nuclear energy for peaceful purposes. Without such legislation and the indemnities which preceded it, the industry would not exist today."¹⁵

His Honour also found that the development of nuclear energy is within the mandate of the Canadian Parliament. The federal mandate in this area comes from two sources within the Constitution Act, 1867. The first is the opening clause of Section 91 of the Act which gives Parliament power to legislate in areas of national concern for the peace, order, and good government of Canada. The second derives from Sections 91(29) and 92(10)(c) which confer on Parliament the authority to declare certain works and activities for the general advantage of Canada and thereby brings them within Parliament's legislative competence. In this regard, works for the production, use, and application of nuclear energy have been declared to be works for the general advantage of Canada by Section 18 of the Atomic Energy Control Act.

The Court also found the NLA to be closely tied to the Atomic Energy Control Act, and hence within the overall federal nuclear regulatory structure. Both are concerned with the development, application, and use of atomic energy, and the court suggested that the NLA was supplementary to the Atomic Energy Control Act and could have been incorporated as part of it.

The Court's view was that the consequences of a nuclear incident were as much a matter of national concern as the developmental aspects of atomic energy.

"It follows that it is the government, which in its wisdom decided to use atomic energy for peaceful purposes and enacted the NLA in order to develop that atomic energy, that should be the body responsible for determining liability for nuclear damage and for providing a scheme for compensation. Matters of national concern must be dealt with interprovincially."¹⁶

Re The Charter Arguments

Justice Wright held that the NLA did not infringe the Canadian Charter of Rights and Freedoms. Indeed, the Court expressed its reservations about the justiciability of the issues in the case.¹⁷ It suggested, as had the United States Supreme Court in an earlier similar case, that the claim was premature, speculative and hypothetical.¹⁸

With reference to the Plaintiffs' argument that the NLA, by encouraging an inherently risky technology, contravenes the right to life, liberty and security, the Court's view was that the decision to proceed with nuclear development was a government policy decision taken in full recognition of the possible risks involved. Policy decisions of this nature, Justice Wright considered, are outside the scope of the provisions of Section 7 of the Charter.

"I would have great difficulty with a proposition that would bring a government policy decision concerning the use of nuclear power within the scope of Section 7. The government was well aware of the inherent risks but in its wisdom, proceeded with fostering the development of nuclear reactors by enacting the NLA to deal with the economic consequences of the known risks to the public."¹⁹

Furthermore, the Court found that the Plaintiffs had failed to prove that increased nuclear power use increased the risk to the security of the public more than the use of alternative generating forms. It was up to the Plaintiffs to show the comparative risk to the public of producing electricity through nuclear power versus other forms.

"Electricity is produced by various uses of natural resources to produce power for example, coal and gas, which also have their impact on the environment. The plaintiffs have not provided evidence to show that there is greater risk to the public of producing electricity by nuclear power than by alternate methods."²⁰

The Court also did not accept the Plaintiffs' argument that the NLA and its scheme of limited and exclusive liability reduce the incentive for care. While the Court recognized that in some circumstances it may well be that less liability results in a reduced level of care, the operation of nuclear plants was different. Reference was made to the experience of the German industry where the move to unlimited operator liability was not accompanied by any change in the utilities' approach to safety. Justice Wright considered that the operator's own interests in safety and the scrutiny of the regulator were explicit incentives for safety that more than offset any implicit incentives for less safety that the NLA's liability regime might produce.

"There are a number of explicit incentives for safety for nuclear plant operators which more than offset any implicit incentives for less safety. Explicit incentives for safety include the concerns for the health and safety of employees who work at the plants, loss of the operating licence, loss of public confidence and possible financial loss."²¹

His Honour considered that the role of the regulator negates the allegations that the NLA causes less safe operation of nuclear reactors, and remarked on the dedication of witnesses from the Canadian nuclear industry to the goal of nuclear safety.²²

The Court sought from the Plaintiffs clear examples where the existence of the NLA had resulted in decisions being made by the operators that reduced the level of care. No evidence of this nature was presented in the over 1000 exhibits filed during the course of the trial. Neither the operators nor the regulator had taken the NLA into account in their decision making processes. When pressed for examples by the Court in final argument, the Plaintiffs identified three key areas where there was an alleged link between the existence of the NLA and safety decisions. These areas were off-site emergency planning, the implementation of a second emergency shutdown system, and the establishment of moderator low-level trips. The Court, however, was not convinced in these areas, or in other areas, "that the existence of the NLA has caused less safety in the operation of nuclear reactors which has resulted in increased risk to the public" ²³

As for the Plaintiffs' other Section 7 claims the inadequacy of the compensation available under the NLA and the removal of a judicial process where claims exceed \$75 million the Court was of the view that these were not grounds for declaring that Section 7 had been infringed. The Act provides that the liability limit is \$75 million. However, it also provides explicitly that compensation under the Act may be increased at the discretion of Parliament. The Court acknowledged that "it would be outrageous if the government did not compensate beyond the \$75 million" ²⁴

In terms of the benefits of litigation versus an administrative system to deal with mass torts the Court's view was that it was appropriate for the government, having enacted legislation for the development of nuclear energy, to provide for special measures for compensation in the event of a nuclear accident. Indeed the Court held that such an alternative system of compensation was in fact preferable from the victim's perspective.

"In the event of a nuclear incident, I suspect that the plaintiffs would find themselves in a more difficult position in obtaining compensation through the court system than through the government's special measures for compensation. The plaintiffs would be required to prove negligence on the part of one of the operator, regulator, contractor, supplier, or others, and that the alleged negligence was the cause of the damages suffered. The payment of any judgments would come from a pot of money limited by the ability of the negligent party to pay. There would be legal decisions subject to years of appeals. That avenue for compensation is to be compared to political decisions made by representatives of the people who have suffered damages." ²⁵

The Court also rejected the Plaintiffs' equality rights argument. This argument held that the NLA created a particular group of individuals, victims of a nuclear accident, who would not be afforded equal protection of the law. Justice Wright could not find grounds to suggest that the Act was discriminatory under the provisions of Section 15 of the Charter because of its treatment of victims of a nuclear accident. On this matter, his view was that the Charter provision could not be invoked to protect a hypothetical class of persons, i.e. potential victims of a nuclear accident, such a group not being a "discrete or insular minority" ²⁶. His Honour was also of the view that rather than depriving rights of potential victims of a nuclear accident, the Act "exchanges certain potential rights in favour of others in the context of the statutory scheme as a whole" ²⁷.

As the Court found no infringement of either of the Charter provisions cited by the Plaintiffs, there was no need for it to discuss Section 1 of the Charter, the issue of whether an infringement of the Charter is justifiable.

Re The Bill of Rights Arguments

The Plaintiffs' final argument claimed that the Canadian Bill of Rights guaranteed a right to enjoyment of property and that this right could not be removed without due process of law. The Court held this guaranteed procedural protection only, not a substantive right.

"Paragraph 1(a) of the Canadian Bill of Rights does not guarantee an absolute right to the enjoyment of property. Rather it protects an individual from being deprived of that right, except by due process of law. "Due process" constitutes procedural fairness, it does not grant a substantive right."²⁸

Part II of the NLA provides an acceptable process to hear victims' claims, including claims for property damage.

Similarly, while Section 2(e) of the Canadian Bill of Rights guarantees the individual to a fair hearing, it does not guarantee access to a court of law. In the Court's view, the administrative claims process provided for in Part II of the NLA could provide the appropriate process for ensuring a fair hearing and appropriate compensation. Any suggestion that hearing process was unfair would have to be made in the event of an accident once the process had been elaborated.

The Appeal

The Plaintiffs have appealed the decision of the Ontario Court (General Division) to the Ontario Court of Appeal. The grounds of the appeal are largely reminiscent of the arguments presented by the Plaintiffs at trial.

The Plaintiffs contest the trial Judge's conclusion that the Nuclear Liability Act is within federal jurisdiction. In this regard, they challenge Justice Wright's findings that the purpose of the Act was to facilitate nuclear development and that the provisions of the NLA are integral to nuclear energy activities.

The Plaintiffs contend that the trial Judge erred in deciding the Plaintiff's claim that the Act is inconsistent with Section 7 of the Canadian Charter of Rights and Freedoms. They allege that the trial Judge erred by assuming that the federal government would compensate victims beyond the liability limit provided for in the Act. They also contend that the trial Judge erred by "approaching the issues under Section 7 of the Charter as though the Plaintiffs had the obligation to prove negligence" and also by characterizing the NLA as a policy that is not reviewable by the Courts.

The Plaintiffs also challenge Justice Wright's conclusion that the Act does not infringe Section 15 of the Canadian Charter of Rights and Freedoms. They argue that the NLA is discriminatory to individuals and groups based on physical disability, age, place of residence and type of victim.

Furthermore, they argue that the trial Judge erred in his ruling that the Canadian Bill of Rights provides for only procedural and not substantive rights and that it is premature to decide whether the Act is contrary to the Canadian Bill of Rights.

Finally, the Plaintiffs contend that a number of errors of law were made in the conduct of the trial and in the awarding of Costs.

The appeal will likely be heard sometime in 1995.

Meanwhile, the federal government is continuing its review of the NLA. The review was initiated in order to address certain concerns over the Act and to bring it into line with similar legislation in other countries. While the review was initiated several years ago, the demands of the litigation limited the effort that could be put into it. Now that the first round of the legal action is complete, the review will recommence.

Notes and References

- 1 Constitution Act 1867 R S C 1985 Appendix II document 5
- 2 Constitution Act 1982 R S C 1985 Appendix II document 44
- 3 Nuclear Liability Act R S C 1985 c N 28
- 4 Canadian Charter of Rights and Freedoms R S C 1985 Appendix II document 44
- 5 Canadian Bill of Rights R S C 1985 Appendix III
- 6 Section 92 of the Constitution Act 1867 states as follows

"92 In each Province the Legislature may exclusively make Laws in relation to Matters coming within the Classes of Subject next hereinafter enumerated that is to say

13 Property and Civil Rights in the Province "
- 7 Section 92A(1) of the Constitution Act 1867 states as follows

"92A(l) In each province the legislature may exclusively make laws in relation to (c) development conservation and management of sites and facilities in the province for the generation and production of electrical energy "
- 8 Atomic Energy Control Act R S C 1985 c A 16
- 9 Section 7 of the Canadian Charter of Rights and Freedoms states as follows

"7 Everyone has the right to life liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice
- 10 Section 15(1) of the Canadian Charter of Rights and Freedoms states as follows

"15(1) Every individual is equal before and under the law and has the right to equal protection and equal benefit of the law without discrimination and in particular without discrimination based on race national or ethnic origin colour religion sex age or mental or physical disability
- 11 Section 1 of the Canadian Charter of Rights and Freedoms states as follows

"1 The Canadian Charter of Rights and Freedoms guarantees the rights and freedoms set out in it subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society "

12 Section 1(a) of the Canadian Bill of Rights states as follows

"1 It is hereby recognized and declared that in Canada there have existed and shall continue to exist without discrimination by reason of race, national origin colour, religion or sex the following human rights and fundamental freedoms, namely (a) the right of the individual to life, liberty security of the person and enjoyment of property and the right not to be deprived thereof except by due process of law,"

13 Section 2(e) of the Canadian Bill of Rights states as follows

"2 Every law of Canada shall unless it is expressly declared by an Act of the Parliament of Canada that it shall operate notwithstanding the Canadian Bill of Rights be so construed and applied as not to abrogate, abridge or infringe or to authorize the abrogation, abridgement or infringement of any of the rights or freedoms herein recognized and declared, and in particular no law of Canada shall be construed or applied so as to

(e) deprive a person of the right to a fair hearing in accordance with the principles of fundamental justice for the determination of its rights and obligations "

14 Energy Probe v Canada (Attorney General) (1994) 17 O R (3d) 717 (G D)

15 Ibid p 724

16 Ibid p 728

17 Ibid p 730

18 Duke Power Co v Carolina Env Study Group 438 U S 59 (1978)

19 Energy Probe v Canada (Attorney General) supra p 731

20 Ibid p 732

21 Ibid p 733

22 Ibid p 734

23 Ibid p 750

24 Ibid p 757

25 Ibid pp 755 756

26 Ibid p 758

27 Ibid p 759

28 Ibid pp 759 760

UNITED KINGDOM

The THORP Case

On 4 March 1994 Mr Justice Potts upheld authorizations granted to British Nuclear Fuels plc (BNFL) to discharge radioactive waste from the Sellafield site so effectively enabling BNFL to commission the THORP nuclear fuel reprocessing plant. In addition the Judge upheld the decision of the Secretary of State for the Environment not to call in the application for authorisation for his own determination and not to hold a local inquiry and refused to make declaration sought by the applicants regarding the application of the principle of justification the need for an environmental impact assessment and the need for a public inquiry to be held. However, in the course of his judgment, Mr Justice Potts ruled that there was a legal obligation arising from the Euratom Directive laying down basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation as amended (80/836/Euratom amended by 84/467/Euratom) to justify the grant of the authorizations.

This commentary briefly summarises the main issues in this case and the judgment.

The application for judicial review

The case was brought by Greenpeace the environmental pressure group, and Lancashire County Council, the local authority for an area close to Sellafield, against the Secretary of State for the Environment (the Secretary of State), Her Majesty's Inspectorate of Pollution and the Minister for Agriculture, Fisheries and Food (the Minister). The applicants sought judicial review of the Secretary of State's decision of 15 December 1993 refusing to call in BNFL's application for discharge authorizations and to hold a local inquiry and of the decision of the Chief Inspector of Her Majesty's Inspectorate of Pollution and the Minister on 17 December 1993 to grant the relevant authorizations to BNFL. BNFL were represented at the hearing as a party directly affected.

Background

Following an extensive public inquiry which heard evidence over some 100 days in 1977 and following two Parliamentary debates planning permission for THORP was granted in 1978 by a Special Development Order. BNFL completed the construction of THORP in February 1992. In April 1992, BNFL applied for authorizations for discharges of radioactive waste from Sellafield. A public consultation was held to consider the proposed authorizations it lasted for 10 weeks from 16 November 1992 and some 84 000 responses were received. After considering the responses including those of Greenpeace and Lancashire County Council the authorizing departments concluded that the proposed authorizations would "effectively protect human health the safety of the food chain and the environment generally". However, this view was reached without considering a number of wider issues which were raised during the consultation including issues relating to the justification for THORP.

A second round of consultation was therefore held from 4 August to 4 October 1993 to provide an opportunity for these wider issues to be considered. In announcing the second round of consultation, the Secretary of State and the Minister stated that the wider issues were not relevant in the context of the exercise of their functions under the relevant UK legislation the Radioactive Substances Act 1993, but even if they had been they would still have been minded to conclude that the authorizations should be granted after considering additional documents on the wider issues prepared for the second round of consultation. These documents were papers by BNFL on the

economic and commercial justification for THORP and on environmental aspects of its operation, and a statement of Government policy on reprocessing and the operation of THORP. However, the Ministers recognised that information on these wider issues had not been made available for wider comment and said that no decision should be taken until after further consultation.

Having considered the responses to the further consultation, the Ministers took the decisions challenged by the applicants, in particular to grant the authorizations sought by BNFL.

Purpose of Judicial Review

Mr Justice Potts emphasised at the outset that the court's function was not to act as a court of appeal from the decisions complained of. In other words, the court could not substitute its own view on the question whether the authorization should be granted on the basis of the facts, nor could it resolve any disputes of fact. The question for the court was whether the respondents had acted unlawfully in reaching any or all of the decisions in question.

The Issues

At the hearing, it became clear that there were four essential issues:

- justification: was justification required in law and was the finding that the activities giving rise to the discharges in question were justified irrational?
- environmental impact assessment: did the European Community Council Directive 85/337 on the subject apply and were the essential requirements of the Directive complied with in any event?
- consultation: was it conducted fairly and properly?
- local inquiry: was the decision not to hold an inquiry flawed or irrational?

Justification

a) Was justification required in law?

The question for the court was whether justification must be considered in the exercise of the powers under the Radioactive Substances Act 1993 to grant authorizations for disposal of radioactive waste. The Act is silent on how these powers are to be exercised. The applicants claimed that the Act should be construed consistently with:

- i) guidance issued by the Department of the Environment (the Guide) explaining the policy behind the Act and the recommendations of the International Commission on Radiological Protection (ICRP) and stating that the basic objectives of radioactive waste management in the UK included the justification principle, and
- ii) Articles 6 and 13 of the Euratom Directive on Basic Safety Standards as amended (80/836 Euratom) which refer to the principle of justification.

Greenpeace submitted, relying on the Guide, that it is Government policy to apply ICRP standards to radioactive waste management and the control of waste. Since the Act is silent on the

point the announced policy in the Guide should be applied in any exercise of the powers to grant discharge authorizations under the Act To fail to do so would be to fail to have regard to a material consideration Lancashire County Council argued further that, even without the Euratom Directive to have applied the Guide as a relevant consideration would not have been unlawful

Mr Justice Potts said that he was unable to accept the applicant's submissions on the application of the Guide UK statutes are not to be construed by reference to departmental guidance and the Radioactive Substances Act on its own does not require prior justification of the activities leading to the proposed discharges for which authorizations are sought

In relation to the Euratom Directive, the respondents accepted that it was a principle of Community Law that national legislation must be interpreted as far as possible consistently with relevant community directives but noted that the principle does not require the plain meaning of the statute to be distorted The applicants submitted that there is nothing in the relevant sections of the Radioactive Substances Act which is inconsistent with the Directive and there can be no question of distorting the policy of the statute since the Directive clearly accords with the policy laid down in the Guide

The respondents argued that nothing in the Directive required justification to be considered for the purpose of granting discharge authorizations Articles 30-33 of the Euratom Treaty (pursuant to which the Directive was adopted) are concerned with laying down "basic standards" and there is nothing in them to suggest that activities complying with the basic standards may nonetheless be prevented by reference to the principle of justification In their submission, Article 6 of the Directive lays down general principles but does not impose separate obligations on Member States further, Article 13 of the Directive provides by way of primary obligation that the contribution to the exposure of the population as a whole from each activity is to be kept to the minimum necessitated by that activity and that this presupposes the carrying on of the activity

The respondents also argued that the amended wording of the Directive makes it clear that it is the type of activity not the carrying on of the activity at a particular site that must be justified in advance and that reprocessing had been justified by the planning inquiry and Parliamentary debates on THORP

Mr Justice Potts noted that Article 30 of the Euratom Treaty and Articles 6 and 13 of the Directive sit uneasily together and present problems of construction Nevertheless he concluded that the Directive must be intended to require justification to be considered for the purpose of authorizations such as discharge authorizations, that the Directive required justification of the particular activity of reprocessing at Sellafield, that this had not been done by the planning inquiry and Parliamentary debates, and that the relevant sections of the Radioactive Substances Act can be construed to accord with these requirements without distorting their meaning Accordingly in Mr Justice Potts' judgment there was a legal obligation to justify the grant of the authorizations

b) Was justification properly considered in any event?

Mr Justice Potts rejected the applicants' arguments that justification had not been properly considered by the Ministers After considering the way in which the Ministers had dealt with both the narrow and the wide issues, the Judge concluded that "the Ministers' approach to justification cannot be faulted", that they were entitled to reach the conclusion that the balance came down on the side of justification and that the issue of justification was properly addressed by them

Environmental Impact Assessment

The basis of the applicants' argument under this head was that the construction of THORP and the bringing into operation of THORP constituted two separate projects. Mr Justice Potts pointed out that unless this contention was correct the case regarding the need for an environmental impact assessment prior to operation of THORP must fail. If there was only one project, its commencement pre-dated the 1985 Directive on environmental impact assessments and the Directive would not apply. The Judge ruled that there was only one project and hence that there was no need for an environmental impact assessment prior to the grant of the discharge authorizations but that in any event the information made available for consultation met the substantive requirements of the Directive.

Consultation

Essentially, the applicants' argument under this head was that fuller information concerning economic issues could and should have been given. Mr Justice Potts concluded that the consultation process satisfied all relevant requirements, that the procedure adopted by the Ministers was at all times proper and that the decision was fairly reached. In his judgment, there was no good ground for saying that the circumstances of the consultations were such as to create reasonable concern about the fairness of the decision.

Local Inquiry

The applicants alleged that a public inquiry should have been held. Mr Justice Potts noted that the relevant section of the Radioactive Substances Act confers a wide discretion on the Secretary of State and that in accordance with the ordinary principles of public law that discretion must be exercised for the purposes of the legislation and the decision reached must not be irrational. In support of their claim, the applicants pointed to a number of matters which they said were relevant including the serious scientific and economic matters included in the responses to the consultation which in their view could only be tested and properly resolved by the experts on each side giving evidence before an independent Inspector, the need to allay public concern on radiation and the fact that the Ministers were deciding matters when their Government had made clear that its policy and wish was for THORP to proceed.

Mr Justice Potts said that the Secretary of State had adequately and properly addressed all those matters relevant to his decision not to hold an inquiry. Whilst the judge accepted that the argument that scientific and economic issues ought to be considered and tested in public is a strong one, in his judgment the Secretary of State was entitled to decide not to hold an inquiry. Equally although the Judge saw the force of the argument on the need to properly inform the public of matters such as those under review, the Secretary of State's decision could not be impugned provided that he applied his mind genuinely and rationally to the issue. The judge concluded that the Secretary of State acted lawfully within the powers conferred on him under legislation, he did not err in law, he did not take into account irrelevant considerations, he had regard to all relevant considerations, the decision was not irrational.

Conclusion

Whilst the judgment upheld the authorizations granted to BNFL and enabled THORP to be commissioned, the comments of Mr Justice Potts on the requirement for justification under the Euratom Directive on Basic Safety Standards (80/836/Euratom) could have far-reaching implications.

The effect of the judgment in this respect will need to be considered in the light of any amendments to the Basic Safety Standards Directive which is currently being reviewed

As well as the radiological impact of discharges, matters considered by the Ministers in the THORP case in weighing the justification for reprocessing at THORP included spent fuel management, waste management, the decision to reprocess economic aspects, transport and non proliferation concerns

European Commission

The European Atomic Energy Community's common supply policy for nuclear materials (1993)*

On 29 November 1993, the German company Kernkraftwerke Lippe Ems (KLE) the operator of a nuclear power plant and, in that capacity a user of uranium, submitted to the Supply Agency¹ (the Agency), under Article 52 of the Treaty, a supply contract for 400 tonnes of uranium between it and British Nuclear Fuels Ltd plc (BNFL) Given the low price level, on 10 December 1993 the Agency asked the parties to the contract for additional information on the origin of the uranium On 14 December 1993, BNFL stated that the uranium would be coming from the republics of the Commonwealth of Independent States (CIS), and probably from the Russian Federation

On 29 December 1993, under Article 53, second paragraph of the Treaty KLE referred to the Commission the failure of the Agency to act within ten days as provided by Article 5bis(f) of the Agency Regulation of 5 May 1960², as amended by the Regulation of 25 July 1975³ This provision determines the manner in which demand is to be balanced against the supply of ores source materials and special fissionable materials On 4 February 1994 the Commission rejected this request by the Agency⁴ The Commission considered that the information on the origin of the uranium, moreover as required by the above-mentioned Regulation was all the more important since the Agency, by exercising its right to conclude the contracts, ensured that the Community did not become excessively dependent on any one particular supply source and that nuclear materials from the CIS would be acquired at market prices The Agency was therefore entitled to request additional information and it was from the date on which it received such information that the ten day period should run

Since KLE had already previously contracted large quantities of uranium from the CIS on 6 January 1994 the Agency took Decision No 1/94 In accordance with this Decision the Agency concluded the contract, on condition that the uranium should not come from the republics of the CIS the reason being that KLE could not enjoy a privileged position as compared to other users [Article 52 second paragraph under (a)]

* This note has been kindly prepared by Mr R Lennartz Administrator Directorate General for Energy European Commission

In accordance with Article 53, second paragraph of the Treaty, KLE referred this decision to the Commission. In short, KLE contested the Agency's competence to impose conditions in contracts submitted to it, thus applying an interventionist policy not provided for by the Treaty. In addition, KLE asked the Commission to order the Agency to compensate it for the loss it would incur by concluding a replacement contract at a higher price for uranium not coming from the CIS.

By decision of 21 February 1994, the Commission rejected all the requests of the KLE⁶. The elements of its decision are the following:

KLE asserted that, under Article 5bis of its Regulation, the Agency was obliged to conclude any supply contract which satisfied the formal requirements of that Article. The reply was that, under Article 61 of the Treaty, the Agency is not obliged to meet orders when there are "legal or material obstacles to their execution". Such an obstacle does exist if, by meeting the order, the Agency were to secure a privileged position for certain users, thus contravening Article 52, second paragraph of the Treaty. Furthermore, under Article 5bis of the Regulation, the Agency is entitled to refuse to conclude a contract.

KLE also claimed that the Agency was not empowered to take interventionist measures on the market or to impose price controls, thus establishing a policy of diversifying sources of supply. To counter this allegation, the Commission cited the Resolution of the Council of the European Communities (now the European Union) of 16 September 1986 concerning new Community energy policy objectives for 1995 and convergence of the policies of Member States⁸ which declares emphatically:

"that the energy policy of the Community and of the Member States must endeavour to achieve the following horizontal objectives:

- a) more secure conditions of supply and reduced risk of sudden fluctuations in energy prices through geographical diversification of the Community's external sources of supply."

As regards more particularly the supply of nuclear material, the Commission considers that the common supply policy referred to in Article 52 of the Euratom Treaty must be directed towards the objectives set out in Article 2(d) of the Treaty, which provides that the Community must "ensure a regular and equitable supply of ores and nuclear fuels to all users in the Community", and Article 2(c) which provides that the Community must "guarantee the construction of the basic facilities required for the development of nuclear energy within the Community".

In connection with the legal conditions for implementing this diversification policy, the Commission considers that, in the light of Articles 52(2)(b) and 64 of the Treaty, the Agency has the right to decide whether and with which partners contracts or agreements should be concluded for the supply of ores, source materials or special fissile materials from outside the Community and also to determine the modalities required for such supplies. Even if the Agency does allow producers and users themselves to draw up contracts directly and more easily, it has not lost the powers conferred upon it by the Euratom Treaty.

The Commission recalled in this respect that Article 14 of the Agreement with the USSR on "trade and commercial economic co-operation"⁷ specified that goods must be traded between the contracting Parties at market related prices. Where supplies are available at prices unrelated to market conditions, the Agency must take that into consideration when exercising its exclusive right to conclude contracts.

KLE alleged that the Agency was not competent to take commercial policy measures since these could only be adopted on the basis of Article 113 of the European Communities Treaty. On this point, the Commission considers that the Euratom Treaty takes precedence over the provisions

of the EC Treaty since it is a sectoral Treaty which contains special rules regarding a common supply policy which also extends to supplies from outside the Community. This precedence not only derives from Article 232(2) of the EC Treaty which states that its provisions will not derogate from those of the Euratom Treaty, but also from the fact that both Communities were established, from a legal, organisational and institutional viewpoint, as two mutually independent Communities.

To the complaint that the Agency's policy lacked transparency, the Commission replied that users and producers of nuclear materials in the Community took part in defining and implementing the common supply policy through the Agency's Advisory Committee. According to the Statutes of the Agency, this Committee acts as a link between the Agency on one hand and users and sectors concerned on the other. Committee members are appointed by the Council of Ministers, on proposal by Member States, from representatives of producers and users and from highly qualified experts. Minutes of meetings showed that KLE representatives had attended.

KLE further alleged that the Agency's Decision contravened the principle of the legality of administrative action, taking the view that the Euratom Treaty provided for no constitutional essentially balanced evenly applied administrative procedures. Accordingly, the system of quotas established by the Agency went against Community law.

The Commission did not share this view. In effect, due to the simplified procedure provided for under Article 5bis of the Agency Regulation, the Community grants users and producers a maximum of transparency and limits public law intervention to an irreducible minimum, justified by market conditions. To date, users and producers have been almost unanimously opposed to introducing a formal quota system.

According to KLE, the conditional signing of the supply contract violated the principle of proportionality since the Treaty provided for less restrictive supply policy instruments such as building up emergency stocks and taking steps to promote prospecting.

However, both instruments are the responsibility of the Commission and the Council and not of the Agency.

By limiting imports from the CIS, KLE alleged, the Agency forced users to buy uranium at excessive prices. The Commission recalled in this respect that the Agency's Decision referred to market-related prices, namely, prices which reflect production costs and are consistent with the prices charged in market-economy countries. Furthermore, the Commission pointed out that the common supply policy should take account of the long-term supply contracts the Community had concluded with a number of third countries.

Based on these arguments, the Commission rejected the claims made by KLE.

KLE appealed against the decision of 4 February 1994 (case T-149/94⁸) and against that of 21 February 1994 and also put forward a claim for compensation (case T-181/94)⁹ before the Court of the First Instance of the European Union in Luxembourg.

Notes and References

- 1 The Supply Agency was constituted under Article 52 of the Euratom Treaty. It has the exclusive right to conclude contracts relating to the supply of ores, source materials and special fissionable materials coming from inside or outside the Community.
- 2 Official Journal of the European Communities (OJ) No. 60 of 11 May 1960
- 3 OJ No. L 193 of 25 July 1975 p. 37
- 4 OJ No. L 48 of 19 February 1994 p. 45
- 5 OJ No. L 122 of 17 May 1994 p. 30
- 6 OJ No. C 241 of 25 February 1986 p. 1
- 7 OJ No. L 68 of 15 March 1990 p. 2
- 8 OJ No. C 146 of 28 May 1994 p. 13
- 9 OJ No. C 174 of 25 June 1994 p. 22

ADMINISTRATIVE DECISIONS

Switzerland

Selection of a site for a radioactive waste repository (1994)

On 29 June 1994 the Wellenberg Co-operative Company for radioactive waste management (GNW) submitted to the Federal Council (the Government) an application for a general licence for creating a repository for the final disposal of short-lived low and medium level radioactive waste.

On 23 February 1994 the Federal Council considered the studies made on four possible sites. The Government selected the Wellenberg site in the Nidwalden Canton in central Switzerland. From a geological viewpoint this region is the most suitable for the final storage of the above waste. In accordance with Swiss legislation, the application for a general licence and the related documents have been made public thus enabling anyone who so wishes to lodge an objection until 14 November 1994. The Principal Nuclear Safety Division (DSN) and the Federal Commission for the Safety of Nuclear Installations (CSA) have been asked to give their expert opinion and state their position.

NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

ARGENTINA

ORGANISATION AND STRUCTURE

Decree reorganising the nuclear sector (1994)

The purpose of Decree No 1540 of 30 August 1994 is to restructure the nuclear sector in Argentina. In particular, certain tasks and responsibilities of the National Atomic Energy Commission have been reassigned to other bodies established by the Decree.

The Decree has set up a National Nuclear Regulatory Agency (*Ente Nacional Regulator Nuclear*) under the authority of the President of Argentina as well as the Argentine Nuclear Electricity Company Ltd (*Nucleoelectrica Argentina S A*) and provides that the National Atomic Energy Commission will remain under authority of the President.

The new **National Nuclear Regulatory Agency** takes over the regulatory responsibilities for nuclear activities previously attributed to the Commission. To this effect, it will establish and propose to the National Executive (the Government) the regulations required to implement activities related to nuclear and radiological safety, physical protection and control of the use of nuclear materials, licensing and control of nuclear installations and international safeguards.

The Agency is autonomous and has legal personality to act in matters involving public and private law. It owns property transferred from the Commission in accordance with this Decree. The Agency will be managed by a Board made up of one President and five Directors, designated by the Government for a period of four years which is renewable. The personnel of the Commission involved in the regulation of nuclear and radiological safety is transferred to the Agency as decided jointly by the Ministry of the Economy and Public Works and the General Secretariat of the Presidency.

Nucleoelectrica Argentina (the Company) will be responsible for operating the country's nuclear power plants, in accordance with the regulations on nuclear and radiological safety as determined by the National Nuclear Regulatory Agency. It will comply with all the commitments made by Argentina regarding safeguards and, as the operator of nuclear installations, will be liable for nuclear damage as determined by the Vienna Convention on Civil Liability for Nuclear Damage to which Argentina is a Party. The Commission's assets, contracts and funds connected with the development of nuclear power generation are transferred to the Company.

The plans are that this shareholding Company will be partially or completely privatised and, until then, will be managed by Board of three Directors with three Alternates, designated on proposal of the Ministry of the Economy and Public Works. The personnel of the Commission involved in operation of the country's nuclear power plants will be transferred to the Company.

The National Atomic Energy Commission will henceforth be responsible for research and development in the nuclear field.

AUSTRALIA

ORGANISATION AND STRUCTURE

Amendment of the ANSTO Act of 1987 (1992)

The Australian Nuclear Science and Technology Amendment Act 1992 (No. 83 of 1992) has amended the ANSTO Act, 1987, which provided for this new organisation, replacing the Australian Atomic Energy Commission and reorienting national activities in the nuclear area (the text of the Act is reproduced in Nuclear Law Bulletin No. 40).

The 1992 Act amends several parts of the ANSTO Act (the Principal Act) to take account of national interest requirements, in particular, better commercialisation objectives for ANSTO and independence for the authority responsible for safety.

The amendments give ANSTO the function of conditioning, managing and storing radioactive materials and waste from its own activities and from companies in which it holds a controlling interest. ANSTO will make available, on a commercial basis, its knowledge, expertise and equipment, in particular, by providing training and selling or leasing equipment or facilities. ANSTO, which is a Commonwealth instrument located in New South Wales, was subject to the laws of that state; it has also been provided with immunity from certain state laws.

Furthermore, the Nuclear Safety Bureau set up by the ANSTO Board of Directors has now become a body corporate, independent of ANSTO. Its functions are to monitor and review the safety of any nuclear plant owned by ANSTO and to provide technical advice to the Commonwealth on nuclear power plant safety and related matters.

AUSTRIA

GENERAL LEGISLATION

Adaptation of nuclear legislation in view of Austria's accession to the European Union*

The Radiation Protection Act of 1969 and the Radiation Protection Ordinance of 1972 made in implementation of this Act are mainly designed to ensure that exposure of individuals to radiation is kept as low as possible and that the absorption of radiation from radioactive materials by the human body is restricted to a minimum (see Nuclear Law Bulletin Nos 3 and 9). This law is also designed to ensure that the smallest possible quantities of radioactive materials are released into the air, water and soil. Furthermore, it is provided that workers must undergo pre-employment medical examinations and periodic ones as well during their employment.

The provisions on radioactive waste, set out in the Radiation Protection Ordinance will be revised. A recent draft of the Ordinance requires applicants for a licence and operators of existing installations to provide waste management concepts. According to a contract between the Republic of Austria and the Seibersdorf Research Centre low and medium level radioactive waste can be stored at the Centre until 2012.

According to the new Safeguards Act of 1991 the export of nuclear items requires an authorisation from the Federal Chancellery. Therefore, in fulfilment of Austria's international obligations under the Non-Proliferation Treaty the export of such materials and equipment is subject to licensing on condition that certain criteria, including appropriate safeguards are applied in the country of destination.

As regards the physical protection of nuclear material the Safeguards Act 1991 includes provisions on interference or encroachment by unauthorised third parties. The Ministry of the Interior is the competent authority and it may impose any necessary measure to ensure the protection of nuclear materials.

Austria has signed but not ratified the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy due to the fact that the Act of 1964/1976 on Liability for Nuclear Damage which sets out the amounts and limits of civil liability in Austria has yet to be revised. The revision will be carried out before Austria's accession to the European Union.

After accession to the E U Austria will accordingly become a member of Euratom and will then adhere to the existing safeguards system of Euratom. Like the other members, Austria intends to maintain and further develop an active non-proliferation policy. It will also keep its national safeguards authority which would primarily be responsible for the areas of export controls and illicit traffic in nuclear materials and would also contribute to the development of international safeguards.

The transport of radioactive materials is subject to controls for the purpose of ensuring that it is carried out as safely as possible in accordance with international guidelines set out in RID (carriage of dangerous goods by rail) and ADR (carriage of dangerous goods by road). As regards transport by air, the Restricted Articles Regulations of IATA (International Air Transport Association) are applied. The Ministry of Public Economy and Traffic is the competent authority in this respect.

* This note was kindly prepared by Dr Johannes Krenn, Ministerialrat, Austrian Federal Chancellery.

In the field of radioactive waste disposal, Austria will exercise its sovereignty in prohibiting nuclear waste from abroad to be disposed of finally on its territory. This is of great importance since the Austrian population has feared that after accession to the European Union, foreign nuclear waste could be disposed of in the country. Concerning the nuclear research programmes of the E U , Austria will confine its contribution to the general budget.

BELGIUM

ORGANISATION AND STRUCTURE

Act concerning radiation protection and setting up the Federal Agency for Nuclear Control (1994)

A note on the Bill of the Act on protection of the population and the environment and the dangers of ionizing radiation and providing for the setting up of the Federal Agency for Nuclear Control was published in Nuclear Law Bulletin No 53. The Bill became law on 15 April 1994 and the Act was published in the Moniteur belge on 29 July 1994.

BULGARIA

THIRD PARTY LIABILITY

Accession to the Vienna Convention and the Joint Protocol (1994)

By an Act of 27 July 1994, promulgated by Decree No 173 of 2 August 1994 in the State Gazette No 64, the Bulgarian Parliament authorised the accession of Bulgaria to the 1963 Vienna Convention on Civil Liability for Nuclear Damage and the 1988 Joint Protocol relating to the Application of the Vienna Convention and the Paris Convention.

A novel feature of the Act is that it contains a provision which specifies that the Vienna Convention will apply for Bulgaria as from the date of its accession and not three months after the date of deposit of the instrument as provided by the Convention. Under the Act the liability of the operator of a nuclear installation in Bulgaria is limited to the equivalent of 15 million Special Drawing Rights of the International Monetary Fund.

Bulgaria deposited its instruments of accession to the Vienna Convention and the Joint Protocol with the Director General of the IAEA on 24 August 1994.

DENMARK

THIRD PARTY LIABILITY

Increase of the amount of compensation for nuclear damage (1994)

By Order No 582 of 29 June 1994 the maximum amount of compensation for nuclear damage in Denmark has been raised from 120 to 300 million Special Drawing Rights per nuclear incident. The Order entered into force on 1 September 1994.

FRANCE

ORGANISATION AND STRUCTURE

Decree setting up the Board for Protection against Ionizing Radiation (1994)

Decree No 94-604 of 19 July 1994 sets up the Board for Protection against Ionizing Radiation (OPRI) and was published in the Official Gazette of the French Republic (JORF) on 21 July 1994.

OPRI which succeeds the Central Service for Protection against Ionizing Radiation (SCPRI) and takes over its tasks, has been given the statute of a State public establishment under the joint authority of the Ministers for Health and for Labour.

The Board is the expert body responsible for ensuring protection of the population against ionizing radiation. In particular, it must check whether radioactivity or ionizing radiation represent a hazard for the population or radiation workers and keep records of data concerning exposures to radiation, ensure that regulatory provisions in this field are complied with and verify the efficiency of radiation protection measures, give its technical advice to the Minister for Health prior to the granting of a licence to construct or modify a major nuclear installation, give such advice on applications for approval of radiation sources and radiation-emitting equipment. OPRI also undertakes research on prevention and treatment of radiation exposure of man and the environment and finally, it assists the Ministers for Health and for Labour in the preparation of laws, regulations, Community provisions and international agreements relating to radiation protection.

The Board is managed by a Steering Committee made up of a chairman, eleven representatives of the State (ministerial representatives), eight persons selected in view of their qualifications and three staff representatives. The Committee, which meets at least three times a year, considers the general organisation of OPRI, its budget, contracts, loans, etc.

A Scientific Committee has been set up alongside the Board. Its composition is decided by order of the Ministers for Health, Labour and Research and it must not exceed twelve members. The Chairman of the Steering Committee consults the Scientific Committee on the medical, scientific and technological orientations in the radiation protection field.

The Decree specifies that the reference to the SCPRI should be replaced by a reference to OPRI in all legislative and regulatory texts where it appears

Decree specifying the tasks of the CEA's Atomic Energy Committee and Board of Directors (1994)

Decree No 94-451 of 3 June 1994 (published in the JORF of 5 June 1994) amends Decree No 72-1158 made in implementation of the 1970 Decree, as amended, concerning the Atomic Energy Commission - CEA (see Nuclear Law Bulletin Nos 11 and 30)

The 1972 Decree provides for the operation and responsibilities of the Atomic Energy Committee as well as the responsibilities of the Administrator General and the High Commissioner. This Decree is amended by the 1994 Decree to further specify the respective responsibilities of the Atomic Energy Committee and the Board of Directors.

The Atomic Energy Committee is confirmed as the interministerial authority for information and consultation regarding nuclear matters generally. The Board of Directors is the authority for the day to day management of the CEA and it has been given some of the responsibilities of the Committee. Henceforth, it will approve the draft budget, the settled account and the annual balance-sheet of the CEA.

Furthermore, another Decree, No 94-450 (published in JORF of 5 June 1994) also amends the composition of the Atomic Energy Committee by specifying that the Head of the Control Mission takes part in its meetings with an advisory status.

Order setting the technical conditions for accounting of nuclear materials (1994)

This Order of 16 March 1994 (published in the JORF of 8 April 1994) repeals and replaces a 1982 Order on the same question (see Nuclear Law Bulletin No 30).

It repeats the provisions of the 1982 Order. These relate to the measures to be taken by the holder of a licence under the 1980 Act on protection and control of nuclear materials and concern records, accounting procedures and physical inventories for the different categories of nuclear materials.

The new provisions establish quality assurance methods to improve the reliability of procedures. They concern, in particular, reception and dispatch of nuclear materials, their identification and physical inventory.

GERMANY

GENERAL LEGISLATION

Seventh Act to Amend the Atomic Energy Act (1994)

During the last four years the Federal Government planned, prepared and drafted a major revision of the 1959 Atomic Energy Act as amended (the text of the Act is reproduced in the Supplement to Nuclear Law Bulletin 36, see also Nuclear Law Bulletin Nos 37 and 44) The fate of that revision depended on whether a relevant bill would reach the necessary majorities in both houses of Parliament, namely the Bundestag and the Bundesrat As the opposition formed the majority in the Bundesrat there was only a low probability that the bill would pass The political parties of the opposition are opposed to further using nuclear energy They request a shutdown of all nuclear power plants as soon as possible and, consequently would only agree to an amendment aiming at phasing out nuclear energy In order to overcome this impasse, the Federal Government the Parties of the opposition and industry started talks with the view to reaching a consensus on the future German energy policy including nuclear energy The talks failed and it was evident that the bill on a comprehensive revision of the Atomic Energy Act would definitely not pass the Bundesrat

Consequently, as regards the future energy policy, the Federal Government concentrated its efforts on drafting an Act which, from a legal point of view, only needed a majority in the Bundestag and could pass Parliament without the consent of the Bundesrat This approach of course, entailed a considerable restriction of the original plan to comprehensively revise the Atomic Energy Act The outcome of those efforts was the Act of 19 July 1994 to ensure the use of hard coal for electricity generating purposes and to amend the Atomic Energy Act and the Act on feeding electricity into a system [Bundesgesetzblatt 1994 I, p 1618] This Act amends various Acts to ensure the use of German hard coal for electricity generating purposes Section 4 of the Act contains the Seventh Act to Amend the Atomic Energy Act by which only Sections 7 and 9a of the Atomic Energy Act were amended

A new paragraph 2a in Section 7 of the Atomic Energy Act provides for an additional requirement for the granting of a licence for nuclear power reactors In order to prevent risks for the general public the applicant for a licence must ensure by the design and the operation of the installation that outside the site of the installation drastic measures for protection against ionizing radiation (like e.g. evacuation) need not be taken even in the case of events the occurrence of which, because of the preventive measures required under the Act is practically excluded (like e.g. core melting) The Federal Minister competent for reactor safety and radiation protection will issue guidelines which define the events to be taken into account in the design of the installation The new prerequisite is only applicable to reactors used for electricity generation It does not apply to installations which were fully or partially licensed before 31 December 1993

The new Section 9a para 1 provides for a major change in the concept of the law on nuclear waste treatment According to the previous version nuclear residues had to be recycled which in the case of spent nuclear fuel means that they had to be reprocessed If the recycling or reprocessing was impossible for reasons listed in the Act the residues then became nuclear waste which had to be disposed of safely The amended version does away with the priority to recycle or reprocess Persons who possess radioactive residues now have a choice they may either recycle and reprocess respectively the materials or may directly dispose of them as radioactive waste (so called direct disposal, *direkte Endlagerung*)

TRANSPORT OF RADIOACTIVE MATERIALS

Act of 1994 on the reorganisation of the railway system with consequential amendments to nuclear laws

The reorganisation of the German railway system, in particular the merger of the systems of the Federal Republic of Germany Deutsche Bundesbahn and of the former German Democratic Republic Deutsche Reichsbahn entailed some amendments to provisions in nuclear laws. These amendments are contained in Section 6 nos 77 - 79 of the Act on Reorganisation of the Railway System of 27 December 1993 [Bundesgesetzblatt 1993 I p 2378]. The amendments are of minor importance. They relate to the financial security to be provided by the railway in cases of transport of nuclear material (Section 13 para 4 sentence 1 of the Atomic Energy Act) and to competences regarding supervision of the transport of radioactive substances by rail (Section 24 para 1 of the Atomic Energy Act). Section 9 para 3 no 1 of the Radiation Protection Ordinance (see Nuclear Law Bulletin Nos 44 and 52) has been deleted. The deleted paragraph dealt with the exemption from the licence requirement in certain cases of transport of radioactive substances by rail.

The amendment of the Act on Implementing the so-called Verification Agreement of 1973 relates to Section 15 para 1 sentence 3 and deals with the competent authorities in the field of railway transport. This Agreement, concluded by the non-nuclear Community States, Euratom and IAEA concerns the implementation of the Non-Proliferation Treaty (NPT) (see Nuclear Law Bulletin Nos 23 and 25).

ENVIRONMENTAL PROTECTION

Second Act Concerning Criminal Acts Against the Environment - Amendment of the Penal Code (1994)

By the 31st Act to amend the Penal Code - Second Act Concerning Criminal Acts Against the Environment - 27 June 1994 [Bundesgesetzblatt 1994 I p 1440] the Sections in the Penal Code concerning criminal offences against the environment have been amended considerably. While the statutory range of sanctions for the individual offences in general remained unchanged, the legal elements of an offence are now more precisely drafted and partly extended. As a consequence, the new system of environmental penal law is more comprehensive and stricter. The penal system includes offences committed in the use of nuclear energy or ionizing radiation as well as the violation of obligations in the application for a nuclear licence or to comply with the conditions of a licence or an order of the authorities.

These amendments to the Penal Code have resulted in consequential amendments to the 1976 Radiation Protection Ordinance as amended and the 1990 Act to implement the Convention on the Physical Protection of Nuclear Material.

REGULATIONS ON NUCLEAR TRADE

Foreign Trade Act Amendment (1994)

The Foreign Trade Act has been amended by the 8th Act to amend this Act of 9 August 1994 [Bundesgesetzblatt 1994 I p 2068]. The amendments, inter alia deal with the consequences of the European Union requirements in the field of customs.

Ordinances to Amend the Export and the Import Lists (1994)

A new version of the export list has been published as an Annex to the 86th Ordinance to amend the export list - Annex AL to the Foreign Trade Ordinance of 7 July 1994 (Bundesanzeiger 1994 no 143 p 7921 and no 143a) Paragraph B of the export list forms the so-called nuclear energy list (*Kernenergieliste*) which enumerates the materials, equipment and installations the export of which must meet the special requirements of foreign trade legislation. The new list takes into account the decisions, the Missile Technology Control Régime (MTCR), the Nuclear Suppliers Group (NSG) and the termination of the Co-ordinating Committee on Export Controls (COCOM) as of 31 March 1994.

JORDAN

GENERAL LEGISLATION

Nuclear Energy and Radiological Protection Act (1987)

Act No 14 on Nuclear Energy and Radiological Protection was adopted on 7 March 1987 and provides a regulatory and institutional framework for nuclear activities in Jordan. The Minister of Energy and Mineral Resources (the Minister) is the competent authority in that respect.

The Act sets up an Advisory Committee on Nuclear Energy, chaired by the Minister and made up of representatives of the Ministry, the Health Ministry, the Ministry of Municipal and Rural Affairs and the Environment, the Natural Resources Authority, the Electricity Authority, the Royal Scientific Society as well as representatives of each of the Jordanian universities. The Committee meets at least once a month and its members are appointed for a term of three years which is renewable.

The Advisory Committee is responsible in particular for

- suggesting the policies, plans and legislation required to develop nuclear science and technology and provide related advice,
- establishing a general training policy in the field of nuclear science and technology and radiation protection,
- establishing co-operation and co-ordination as well as organising relations between the competent authorities and institutions involved in the above field as well as between them and the related international and Arab bodies.

The Act has also set up a Commission of Radiation Protection under the Ministry. The Commission is chaired by the Secretary of the Ministry and is made up of the Head of the Nuclear Energy Department of the Ministry, three representatives of the Ministry of Health (two of whom are physicians and the other a physicist) and representatives of the Ministry of Municipal and Rural Affairs and the Environment, the Royal Scientific Society and the Directorate of Civil Defence. The Commission meets at least once a month and its members are appointed for a term of three years which is renewable.

The Commission is responsible in particular for

- advising the authorities on radiation protection matters,
- suggesting policies, plans and legislation with a view to protecting human life, the environment and property against the dangers of ionizing radiation,
- regulating, supervising and providing guidance on rules and procedures relating to radiation protection in connection with radioactive raw materials production, import, export transport, manufacture use storage and disposal of nuclear and radioactive material,
- inspecting licensed institutions to ensure compliance with the radiation protection regulations,
- studying radiation injury cases or environmental contamination and co-operating with the authorities concerned with a view to preventing or minimising such occurrences

The Act specifies that it is prohibited to construct or operate a nuclear installation without a prior authorisation. No person may possess, manufacture, handle, transport, trade in or dispose of radioactive material or equipment without a licence granted by the Minister, on the Commission's recommendation.

Licensees under the Act are required to take all the necessary radiation protection measures and must designate a qualified official to supervise the application of the radiation protection regulations. The Act also specifies the duties of licensees in the radiation protection field.

The rules concerning radiation exposure, dose limits, radiation releases and related matters are to be laid down by the Minister, on the Commission's recommendations.

MADAGASCAR

RADIATION PROTECTION

Decree on protection against ionizing radiation (1993)

Decree No 93-243 on protection against ionizing radiation in Madagascar was published in the Official Gazette of the Madagascar Republic of 21 June 1994 and supersedes all previous provisions in this field.

The Decree specifies that the Minister for the Universities is the competent authority for radiation protection in the use of radioelements, ionizing radiation and any radiation harmful to humanity and the environment, in particular in hospitals and universities as well as for medical pharmaceutical, chemical, industrial and mining purposes and in the food chain.

The Minister is assisted in his tasks by the National Institute for Nuclear Science and Technology which is responsible in particular for checking the installations using radiation sources and prescribing to their operators preventive measures concerning the hazards involved in this work.

At the request of the competent authority in any of the above fields the Institute gives its advice on radiation protection matters and prescribes preventive and intervention measures in the event of a radiological hazard and the conditions for emergency assistance

The Institute must establish and keep up to date records of equipment and apparatus for detecting radiation generally available as well as lists of those available in each Ministry involved. It must also establish and keep up to date intervention plans specific to each type of accident or emergency situation and is responsible for co-ordinating their execution.

It is provided that the Minister for the Universities will issue orders in implementation of the Decree.

MEXICO

RADIATION PROTECTION

Regulations on health and safety in workplaces where sources of ionizing radiation are used (1994)

These Regulations (NOM-012-STPS-1993) were published by the Minister of Labour and Social Planning in the Official Gazette (*Diario Oficial*) of 15 June 1994. They replace similar Regulations (Instruction No. 12) of 1991 (see Nuclear Law Bulletin No. 47).

The Regulations apply to workplaces where sources of ionizing radiation are produced, used, handled, stored or transported. Their purpose is to establish preventive and control measures to ensure that radiation workers do not receive radiation doses in excess of the limits laid down by the Regulations.

They lay down the duties of employers in such workplaces. They must in particular manage, organise and operate their establishment in accordance with the provisions of these and other relevant regulations in force and must also ensure that the protection devices and shieldings are designed, constructed and used in accordance with the safety criteria established by such regulations. The preventive and control measures must be applied in accordance with the regulations laid down in this respect by the competent authorities. Furthermore, such establishments must have an emergency plan prepared on the basis of a risk analysis specific to the establishment concerned. The plan must be approved by the competent authorities.

Workers must undergo a medical examination prior to recruitment and periodically during their work. Records are kept of their accumulated radiation doses and they must be informed of the radiological conditions in their workplace.

The tables in the Regulations set out the maximum permissible intake limits of radionuclides.

TRANSPORT OF RADIOACTIVE MATERIALS

Regulations for the land transport of dangerous materials and wastes (1993)

The above Regulations were published in the Official Gazette of 7 April 1994 and entered into force on the day following their publication

They establish the conditions for the land transport of dangerous materials and waste, including radioactive materials which are categorized as Class 7 dangerous materials. The Regulations specify that the transport of such materials requires a licence and lay down the obligations of carriers and the safety conditions to be complied with for their vehicles. The rules for ensuring the radiological safety of packages containing radioactive materials are to be established by the National Nuclear Safety and Safeguards Commission

REGULATIONS ON NUCLEAR TRADE

Regulations classifying the articles whose import and export are subject to licensing (1994)

These administrative Regulations were published in the Official gazette of 27 June 1994 and entered into force on the day following their publication. They list the nuclear articles whose import and export require a prior licence from the National Nuclear Safety and Safeguards Commission

NETHERLANDS

ORGANISATION AND STRUCTURE

Amendment of Nuclear Energy Act (1992)

The Act of 26 March 1992 amends the Nuclear Energy Act of 21 February 1963 as amended (see Nuclear Law Bulletin No. 28) to introduce changes relating to the Reactor Safety Commission (published in Staatsblad 148, 1992)

The 1992 Act repeals the 1987 Decree which established the Reactor Safety Commission and revises Chapter II of the 1963 Act. The Commission has been granted legal personality and it is an independent advisory body to the Government and public institutions on nuclear safety. The Commission's work is to be evaluated in five years' time

NICARAGUA

RADIATION PROTECTION

Act on Protection against Ionizing Radiation (1993)

Act No 156 on Radiation Protection of 23 March 1993 was published in the Official Gazette of the Republic of Nicaragua on 21 April 1993 and entered into force on that date. The purpose of the Act is to regulate and control all activities related to the use of radioisotopes and ionizing radiation for the protection of health and the environment as well as public and private property.

The Act specifies that the Minister for Health is the competent authority in radiation protection matters and sets up a National Atomic Energy Commission to be chaired by the Minister. The Commission will be responsible for ensuring that the provisions of the Act are complied with; its tasks will be determined by regulations made in implementation of the Act.

The Act applies to construction and operation of radiation emitting equipment; irradiation of food and other products; production, use, handling, transport, import, export, trade in or treatment of radioactive substances and related activities.

No person may engage in any of the above activities without a licence issued in accordance with the conditions established by the Act and regulations made thereunder. In particular, the design, construction, safety system and radiation protection measures planned regarding installations where ionizing radiation is used must be checked to ascertain that they comply with the regulations in force prior to the delivery of a licence.

The competent authorities may inspect all premises where ionizing radiation sources are held to ensure that the provisions of the Act and its implementing regulations are complied with.

Licensees must immediately inform the competent authorities of any loss or theft of radioactive substances or any damage to a radioactive installation or radiation emitting equipment for which they are responsible.

Licensees of radioactive installations must ensure that workers in the installation for which they are responsible are given adequate training concerning the safety measures to be taken in the course of their work. They must provide the necessary safety equipment in their installations in accordance with the recommendations of the competent authorities. Also, persons occupationally exposed to ionizing radiation must use a personal dosimeter during their work and must undergo periodic medical examinations.

Any person who causes damage as a consequence of activities licensed under the Act must pay compensation to the victims of such damage in accordance with the relevant national legislation.

POLAND

REGULATIONS ON NUCLEAR TRADE

Act on special control rules for trade in certain goods and technologies with other countries (1993)

The Act of 2 December 1993 provides for special control rules for the import, export and transit of certain goods and technologies in accordance with international agreements concluded by Poland and the subsequent obligations. The Act was published in the Journal of Laws of the Republic of Poland, No. 129 on 24 December 1993 (*Dziennik Ustaw*) and entered into force three months after its publication.

These control rules apply to a variety of goods and technologies, including those belonging to the nuclear fuel cycle and those capable of producing nuclear explosive devices.

The list of such goods and technologies is established by the Minister for Foreign Economic Co-operation and the Minister for Foreign Affairs. Import and export certificates are issued by the Minister for Foreign Economic Co-operation. Permission for the transit of such goods are issued by the directors of customs duty offices.

Control teams carry out checks on Polish territory. These teams are appointed by the Minister for Foreign Economic Co-operation and include a member of the National Atomic Energy Agency.

The above Minister issued an Order on special controls in foreign trade in pursuance of the Act (published in the Journal of Law No. 19 of 25 March 1994) which entered into force on the day of its publication. The Order contains provisions relating to articles capable of producing nuclear explosive devices.

SLOVENIA

Nuclear Third Party Liability*

Slovenia declared its independence on 25 June 1991. In the process of establishing a sovereign and independent state, the Constitutional Law of 1991 on the Independence of the Republic of Slovenia was passed, which provides that all those laws, which had been adopted in the past by the Yugoslav (federal) authorities, and which do not conflict with the Slovenian legal system, also remain in force in the Republic of Slovenia until adequate laws are passed by the Slovenian Parliament.

* This note was kindly communicated by the Slovenian Nuclear Safety Administration.

Among other regulations which were adopted in the Slovenian legal system the ex-Yugoslav Act of 1978 on Liability for Nuclear Damage (the text of the Act is reproduced in the Supplement to Nuclear Law Bulletin 23) is the most important in the field of nuclear third party liability

The main provisions are as follows

- " - the operator of a nuclear installation shall be liable for nuclear damage regardless of fault
- the operator of a nuclear installation shall be liable for nuclear damage if such damage has been caused by a nuclear incident in his nuclear installation "

The operator of a nuclear installation is not liable for nuclear damage caused by a nuclear incident directly due to an aggression war or act of armed conflict or a nuclear incident directly due to an earthquake, floods, fire or any other grave natural disaster upon proof that such damage could not have been anticipated or avoided

Also, the operator of a nuclear installation is exonerated from his liability for nuclear damage suffered by a person upon proof that such person has caused the damage intentionally

The operator of a nuclear installation is liable for nuclear damage up to a certain amount of Tolars (Slovenian currency) equivalent to US\$5 million for each nuclear incident This amount does not include any interests or costs awarded by a court

The operator of a nuclear installation is required to take out and maintain insurance or other financial security covering his liability for nuclear damage (1980 Act on Insurance for Liability for Nuclear Damage)

The Act also provides for compensation for nuclear damage occurring during the transport of nuclear material

In 1993 the first draft of a new Slovenian Nuclear Liability Act was prepared This draft contains all the provisions which are, for the time being, incorporated in the two separate above mentioned Acts (1978 and 1980) and in a 1987 decree In addition there are some new provisions relating to a presumption of causality (if the claimant provides reasonable evidence that damage arose from a nuclear incident, the operator of the installation concerned bears the burden of proof that the damage did not arise from that cause), and to distribution of funds (in case nuclear damage exceeds the limited amount per nuclear incident)

The draft of this new Nuclear Liability Act will be subject to verification of domestic and foreign experts in this field before submission to the Government and Parliament

SWITZERLAND

GENERAL LEGISLATION

Partial revision of the Federal Atomic Energy Act and Federal Order concerning the Act (1994)

The Bill by the Federal Council (the Government) revising the Atomic Energy Act and Order concerning the Act has been submitted to the various parliamentary legislative commissions (National Council Commission and Council of States Commission) (see Nuclear Law Bulletin No 53). This Bill is divided into two parts: the purpose of the first part is to accelerate the licensing procedures for the construction of radioactive waste repositories, this first part was the subject of important discussions and was postponed to spring 1995 for a new debate. The Bill does away with certain powers of the Cantons (centralisation of the procedure) and this has been the stumbling block of the project. The second part of the Bill aims to strengthen the provisions on non-proliferation and has been accepted by the Commissions. It will be submitted to Parliament in autumn.

TUNISIA

ORGANISATION AND STRUCTURE

Act and Decree concerning the National Centre for Nuclear Science and Technology (1994)

The Bill on the setting up of the National Centre for Nuclear Science and Technology (CNSTN) has already been reported in Nuclear Law Bulletin No 53, the Bill became law on 22 November 1993 and was published in Official Gazette No 91 of 30 November 1993 (*Journal officiel*).

Decree No 94-1707 of 15 August 1994 (published in Official Gazette No 66 of 23 August 1994) provides for the administrative and financial organisation of the Centre.

The Centre is managed by a Board of Directors chaired by a Director General and made up of eleven other members, representing various Ministries and public bodies. The Prime Minister's representative belongs to the State Secretariat for Scientific Research and Technology. The members of the board are appointed for a period of three years, which is renewable, by order of the Prime Minister on proposal of the Ministries involved. The Board meets at least once every three months, and as often as necessary.

The Board may act on behalf of the Centre and fulfil its purposes. It delegates to the Director General the necessary powers to manage the Centre.

The Director General prepares the work of the Board and sees that its decisions are implemented. He is responsible for the administrative, financial and technical management of the Centre and orders receipts and payments. He may also enter into contracts in accordance with the legislation in force.

The above-mentioned Act has set up a **Scientific Council** for the Centre chaired by the Director General and made up of twenty members selected for their competence in the nuclear field. They are appointed by Decree of the Prime Minister on proposal of the Secretary of State for Science and Technology following the advice of the Board of Directors. The Council meets at least once every six months, and each time its Chairman thinks it necessary.

The Scientific Council gives its advice on the programmes related to research, study and development of activities in the nuclear field and in particular, it proposes the Centre's research programmes.

The Centre's operating budget includes appropriations granted by the State, receipts from its activities and revenues from taxes levied for its benefit.

UNITED KINGDOM

RADIATION PROTECTION

The Ionising Radiations (Outside Workers) Regulations 1993

The above Regulations (S.I. 1993 No. 2379) were made on 29 September 1993 and entered into force on 1 January 1994.

These Regulations implement in Great Britain Council Directive 90/641/Euratom on the operational protection of outside workers exposed to the risk of ionising radiation during their activities in controlled areas (see Nuclear Law Bulletin No. 47).

The Directive makes provision for a radiological monitoring system for outside workers which ensures that their employers (outside undertakings) and the operators of the installations where they work meet their obligations with respect to radiation protection.

REGIME OF RADIOACTIVE MATERIALS

Radioactive Substances Act 1993

The Radioactive Substances Act 1993 of 27 May 1993 entered into force three months after it was passed. It repeals the Radioactive Substances Act 1948, the Radioactive Substances Act 1960 as well as relevant parts of certain Acts and makes consequential amendments to others, in particular by providing that every time the Radioactive Substances Act 1960 is mentioned in a piece of legislation, it is to be replaced by the Radioactive Substances Act 1993.

This Act regulates the keeping and use of radioactive material and mobile radioactive apparatus and governs the disposal and accumulation of radioactive waste.

The Secretary of State for the Environment (the Secretary of State) is the appropriate authority regarding implementation of the Act and shares this responsibility with the Minister of Agriculture, Fisheries and Food (the Minister) with respect to radioactive waste (in relation to

Northern Ireland the Department of the Environment for Northern Ireland is the appropriate authority)

The Secretary of State appoints inspectors to assist him in the execution of the Act, one of whom is appointed as Chief Inspector. The Minister may also appoint inspectors he considers qualified as and when necessary.

The keeping and use of radioactive material and mobile radioactive apparatus are subject to registration by the Chief Inspector.

Applications for registration of radioactive material must specify the premises to which the application relates, the use to be made of the material and its description. Applications for registration of mobile radioactive apparatus must in particular specify the apparatus to which the application relates and its proposed use.

The disposal and accumulation of radioactive waste are subject to an authorisation granted by the Minister and the Chief Inspector. Before granting an authorisation, the Chief Inspector and the Minister will consult the local authorities and relevant water bodies. This procedure applies in particular when the disposal operation concerned might be likely to involve the need for special precautions to be taken by the authorities, public or local, or the water bodies. Such precautions are taken with the prior approval of the Minister and the Chief Inspector.

Inspectors may enter any premises where radioactive material, mobile radioactive apparatus or radioactive waste are kept to carry out inspections or tests they consider necessary.

The Chief Inspector keeps copies of applications made to him under the Act as well as any relevant documentation. Copies of those documents are made available to the public, except when they involve trade secrets or national security.

URUGUAY

REGIME OF NUCLEAR INSTALLATIONS

Act concerning approval of nuclear power plants (1991)

A provision (Section 215) in legislation dealing with the budget, Act No. 16.226 of 29 October 1991 (published in Official Gazette No. 23459 of 6 November 1991 - *Diario Oficial*), provides that, as from its entry into force, the siting and construction of nuclear power plants require approval by law.

To this effect, the Government (*Poder Ejecutivo*) must submit to Parliament (*Asamblea General*) all the necessary information concerning the characteristics of any planned nuclear power plant, including an environmental impact study established by the Ministry for Housing, Territorial Planning and the Environment.

RADIOACTIVE WASTE MANAGEMENT

Act concerning radioactive waste (1992)

Similarly to the 1991 Act, budgetary Act No 16 320 of 1 November 1992 (published in Official Gazette No 23682 of 17 November 1992) provides (Section 229) that the transit and final disposal of radioactive waste from other countries is prohibited

The National Directorate for Nuclear Technology is responsible for ensuring compliance with this prohibition

ENVIRONMENTAL PROTECTION

Act on Environmental Protection (1994)

Act No 16 466 of 19 January 1994 (published in Official Gazette No 23977 of 26 January 1994) provides that protection of the environment against any kind of depredation destruction and contamination is in the national interest

It specifies the activities which require and environmental impact study in particular mining of ores and fossil fuels siting and construction of electricity-generating plants of more than 10 MW plants for the production and conversion of nuclear energy and plants for the treatment of toxic and dangerous wastes and final disposal of such waste

Decree on protection of the environment against the effects of toxic and dangerous substances (1994)

Decree No 320/994 of 5 June 1994 (published in Official Gazette No 24 091 of 19 July 1994) provides that it is in the national interest to protect the environment against the effects of toxic and dangerous substances The Decree defines such substances and includes radioactive materials in the definition

A national register is established for such substances in order to provide for regulating and controlling their import, production, management use and final disposal The Minister for Housing Territorial Planning and the Environment is responsible for keeping the register

INTERNATIONAL REGULATORY ACTIVITIES

OECD NUCLEAR ENERGY AGENCY

MEETING ON LIABILITY QUESTIONS RAISED BY ASSISTANCE TO THE COUNTRIES OF EASTERN EUROPE IN RELATION TO NUCLEAR SAFETY (1994)

As reported in a study on these questions in Nuclear Law Bulletin No 53, international efforts to improve the safety of nuclear facilities in Eastern Europe have been blocked by the fears of Western companies supplying equipment and services in this context that they might be exposed to liability in the event of an accident in a nuclear facility to which they had provided such supplies or services, since most eastern European countries do not yet apply the principle of "channelling" liability on to the nuclear operator. This principle which is included in the Paris and Vienna Conventions and in the domestic law of OECD countries which have nuclear industries, provides that in case of a nuclear accident, liability will be borne exclusively by the operator of the nuclear installation.

In an effort to seek an early solution to these difficulties, the OECD Nuclear Energy Agency and the European Commission/G-24 Nuclear Safety Coordination, together with the IAEA, organised a special meeting, at OECD Headquarters in Paris on 4 - 5 July 1994.

The meeting brought together approximately 100 delegates including high-level government officials from NEA countries and the former eastern bloc, as well as representatives of international and non-governmental organisations involved in safety assistance activities, and members of the nuclear industry. It was understood that the conference was not a negotiating session, but rather a forum to promote better understanding, by allowing the various participants to explain their points of view.

The participants unanimously acknowledged nevertheless that the only truly satisfactory solution to the problem was for all the countries in Eastern Europe in which safety improvements were to be carried out to be Parties to the Vienna Convention, as well as to the Joint Protocol, and to have appropriate national legislation. Considerable progress has already been made. A significant number of countries of Central and Eastern Europe have joined the Vienna Convention and Joint Protocol in the last five years, and others are working towards that end and expect to complete the necessary procedures relatively soon.

However, the Russian Federation, the Ukraine, and other countries of the New Independent States (NIS) have not yet taken a decision to become parties to the liability Conventions, although draft legislation on nuclear activities, including provisions on third party liability, is before their Parliaments.

It was therefore suggested at the conclusion of the meeting, that informal discussions should be undertaken to study the ways and means of overcoming the remaining obstacles to accession to the nuclear third party liability Conventions, in the context of each country concerned while encouraging the conclusion of interim agreements on indemnity guarantees. Such agreements would allow the timely execution of important assistance programmes, without waiting for the long term objective of adherence to the international liability regime to be achieved and for the preparation of national legislation. It was stressed, however, that these consultations should avoid encroaching on the bilateral or multilateral official negotiation of indemnity agreements and that the activities of the various interested groups and organisations in this field should be closely co-ordinated.

The Steering Committee for Nuclear Energy at its October 1994 meeting approved the continuation of consultations on this subject and asked the Secretariat to encourage the organisation of consultations with the different interested parties.

The documents distributed in the framework of the Conference will not be published.

BRATISLAVA TRAINING SEMINAR ON NUCLEAR LAW (1994)

Encouraged by the success of the Leiden training seminar in September 1993, the OECD Nuclear Energy Agency organised a further advanced training seminar in nuclear law aimed at the countries of Central and Eastern Europe. At the invitation of the Slovakian authorities, it was held in Bratislava from 30 August to 2 September 1994. Like the Leiden seminar, it was co-sponsored by the European Commission and the International Atomic Energy Agency.

The Bratislava seminar had a more specific focus than the Leiden seminar, which dealt with most subjects in national nuclear legislation. In Bratislava, speakers concentrated on liability and compensation in the case of a nuclear accident, nuclear insurance or other kinds of financial security and techniques for incorporating international norms in national legislation. In addition to lecturers from the NEA, IAEA and the European Commission, there were speakers from national authorities of NEA countries and the European Insurance Committee.

It was attended by approximately 40 participants from 15 countries of Central and Eastern Europe and the New Independent States. The participants were professionals nominated by the national authorities responsible for the development and administration of nuclear legislation.

Since this was a training seminar, there will be no published proceedings.

COLLECTIVE EXPERT OPINION ON RADIATION PROTECTION (1994)

At its meeting on 6-7 October 1994, the Steering Committee for Nuclear Energy endorsed the Collective Opinion of the NEA Committee on Radiation Protection and Public Health on "Radiation Protection Today and Tomorrow" and approved its publication as an NEA report.

This Collective Opinion is an assessment of the present status and future perspectives of radiation protection. It covers the scientific foundation of radiation protection practices as well as the evolution of the conceptual and policy framework, the regulatory and operational infrastructure and the expected developments in the physical, engineering and technological aspects of the protection work. Also reviewed is the status of current achievements in the levels of protection for the various practices using radiation and attempts are made to identify new issues which are forthcoming for the future.

First of all there is the largely shared feeling that the degree of scientific knowledge achieved so far, although still imperfect, constitutes an acceptable basis for a practical and prudent protection system for workers and the general public. Secondly, recent scientific developments, particularly in radiobiology and molecular biology, suggest that important breakthroughs could occur in the near future which might profoundly affect the present system of radiation protection concepts and principles with a possible significant impact on the practice, regulation and cost of radiation protection. Finally, the CRPPH observes that the quality of the radiation protection infrastructure and practical achievements are very variable throughout the world, but that this variability is much smaller within the OECD area where the levels of protection are generally good and sometimes excellent.

INTERNATIONAL ATOMIC ENERGY AGENCY

IAEA GENERAL CONFERENCE (1994)

The thirty-eighth regular session of the General Conference of the IAEA took place from 19 to 23 September 1994. The International Convention on Nuclear Safety was opened for signature on the occasion of the General Conference and was signed by fifty States. An article about the Convention is set out in the "Articles" chapter of this issue of the Bulletin.

Several resolutions were adopted during the conference. They relate in particular to the following questions:

- The application of IAEA safeguards in the Democratic People's Republic of Korea: the Member States adopted a resolution urging the DPRK to co-operate immediately with the Agency in the full implementation of the Agreement and to allow the IAEA access to all safeguards-relevant information and locations.
- Monitoring and verification in Iraq: the resolution stresses the need for Iraq to co-operate fully with the IAEA in achieving complete and long-term implementation of UN Security Council resolutions relating to Iraq.
- IAEA Safeguards System: referring to the 1995 Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons and the IAEA's role in applying safeguards under that Treaty and under regional nuclear-weapon free zones (in Latin America and the South Pacific) the resolution expressed the conviction that IAEA safeguards can promote further confidence among States and thereby help to strengthen their collective security.
- Illicit trade in nuclear materials: confirming that the main responsibility lies with the national authorities, the resolution asks the IAEA Member States to take all the necessary measures to stop such trade.
- Radioactive waste management: the resolution stresses the vital necessity for the IAEA to continue to promote, co-ordinate and strengthen international co-operation in the field of radioactive waste management and invites the Board of Governors and the Director General of the IAEA to start preparations for an international convention on the safety of waste management.

ARAB ATOMIC ENERGY AGENCY

ORGANISATION OF THE AGENCY (1994)

The above Agency (AAEA) was established in 1988 by an Agreement on Arab Co operation in the Peaceful Utilisation of Atomic Energy which was revised in August 1994. The members of the Agency include, inter alia, Jordan, Kuwait, Lebanon, Libya, Saudi Arabia, Sudan, Syria, Tunisia.

The Agency, which has legal personality, has been given a mandate by the Agreement to coordinate and promote the peaceful applications of atomic energy in its Member States.

The Agency's area of activities are, in particular, the following:

- basic research in sciences related to nuclear energy,
- exploration for and extraction of radioactive ores,
- acquisition of technical and scientific capability for establishing all stages of the fuel cycle
- production and uses of radioisotopes in agriculture, medicine, industry
- electricity production, desalination of water and other industrial activities involving atomic energy

The Agency holds training courses and co-ordination meetings on the subjects within its competence, gives scientific advice on Arab national policies in the field of atomic energy, supports scientific research and provides related financial grants and finally co-ordinates Arab positions within the International Atomic Energy Agency.

The Ministers responsible for atomic energy in the Member States are the members of the General Conference of the AAEA and are its highest authority. The General Conference is convened once a year to approve the Agency's programme of work and budget. The Executive Council of the AAEA is made up of the undersecretaries of Ministers concerned. It meets twice a year to oversee the Agency's current work and formulate its yearly programme of work.

AGREEMENTS

BILATERAL AGREEMENTS

Australia-United Kingdom

AGREEMENT ON FORMER UNITED KINGDOM NUCLEAR TEST AND EXPERIMENTAL PROGRAMME AT MARALINGA AND OTHER SITES IN AUSTRALIA (1993)

The Agreement, concluded through an exchange of notes between the United Kingdom Minister of State for Foreign and Commonwealth Affairs and the Australian High Commissioner on 10 December 1993, entered into force on the same date. The purpose of the Agreement was to set the amount of money due by the United Kingdom for the consequences of its former nuclear test and experimental programme at Maralinga, Emu Field and Monte Bello Island.

The British Note states that the United Kingdom shall on an ex gratia basis pay the sum of £20 million (twenty million pounds sterling) in full for any claim submitted by the Australian Government or any natural or legal person in relation to the carrying out of nuclear tests or experimental programmes at Australian sites. This sum shall be paid by 1998 following a timetable established in the Note. This proposal was accepted on the same day by the Australian authorities.

Bulgaria-Germany

AGREEMENT ON CO-OPERATION IN THE FIELD OF NUCLEAR SAFETY AND RADIATION PROTECTION (1993)*

On 26 March 1993, Bulgaria and Germany concluded an Agreement on co-operation in the field of nuclear safety and protection against ionizing radiations.

This Agreement has a wide scope. It covers inter alia, various aspects of radiation protection, including the protection of workers in nuclear installations, the public, and the environment.

* This information has been taken from the International Digest of Health Legislation WHO Vol 45, No 2 1994

DPRK-United States

AGREED FRAMEWORK BETWEEN THE UNITED STATES OF AMERICA AND THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA (1994)

On 21 October 1994 the United States and the People's Republic of Korea signed the above Agreement following negotiations to resolve the nuclear issue on the Korean Peninsula. The text of the Agreement is reproduced in the "Texts and Reports" Chapter of this issue of the Bulletin.

France-Japan

AGREEMENT ON CO-OPERATION IN THE FIELD OF RADIOACTIVE WASTE (1994)

On 4 August 1994 France and Japan signed a research and development co operation Agreement on radioactive waste management. The above Agreement is in line with the previous 1992 bilateral Agreement in the field of the fuel cycle, nuclear safety, research on reactors and spent fuel reprocessing.

The Agreement was concluded between the French Atomic Energy Commission (CEA) and the Japan Atomic Energy Research Institute (JAERI), and it provides for a more comprehensive exchange of information and experts aiming at implementing a joint radioactive waste management programme.

Germany-Ukraine

AGREEMENT CONCERNING QUESTIONS OF COMMON INTEREST IN CONNECTION WITH NUCLEAR SAFETY AND RADIATION PROTECTION (1993)

On 10 June 1993, the Government of the Federal Republic of Germany and the Government of the Ukraine signed an Agreement on questions of common interest in connection with nuclear safety and radiation protection [Bundesgesetzblatt 1994 II p. 380].

The Agreement applies to nuclear installations and connected activities, namely:

- nuclear reactors, including decommissioned installations
- other installations of the nuclear fuel cycle
- radioactive waste treatment,

- transport and storage of nuclear fuels or radioactive waste,
- production, use, storage, disposal and transport of radioisotopes

The Parties agree on a comprehensive exchange of information. In case of an incident in connection with the above mentioned activities, the Contracting Parties will inform each other without delay. They will also inform each other if activities other than those mentioned cause an unusual increase in radioactivity.

The Agreement was concluded for an unlimited period of time. It may be terminated by each Contracting Party giving six months' notice. The Agreement terminates the Agreement of 25 October 1988 between the Government of the Federal Republic of Germany and the Government of the ex-USSR concerning early notification and exchange of information (See Nuclear Law Bulletin Nos. 42 and 45). The Agreement entered into force on 5 November 1993.

Norway-Ukraine

AGREEMENT ON EARLY NOTIFICATION IN THE EVENT OF A NUCLEAR ACCIDENT AND ON EXCHANGE OF INFORMATION ON NUCLEAR INSTALLATIONS (1994)

On 15 July 1994, Ukraine and Norway concluded the above Agreement in Oslo. In the first part of the Agreement, the Parties agree to inform each other directly and promptly on any nuclear accident occurring within their territorial boundaries, in line with the 1986 IAEA Convention on Early Notification of a Nuclear Accident.

The second part of the Agreement deals with exchange of information on nuclear installations and with the exchange of other technical information relevant to evaluating the possible consequences of a nuclear accident.

This exchange should enable the respective Parties to prepare in due time adequate measures for protection of human beings and the environment.

Slovenia-United States

ARRANGEMENT ON THE EXCHANGE OF TECHNICAL INFORMATION AND CO-OPERATION IN NUCLEAR SAFETY MATTERS (1993)

The above Agreement between the United States Nuclear Regulatory Commission (USNRC) and the Slovenian Nuclear Safety Administration (SNSA) was concluded on 6 December 1993 and published in the Official Gazette No. 6 of Slovenia of 13 May 1994.

The Arrangement provides for

- exchange of technical information relating to the regulation of safety safeguards waste management and the environmental impact of nuclear installations,
co-operation in safety research and development through the execution of joint programmes and projects,
- assistance to Slovenia safety personnel by organising training activities and assignments
- provision of additional safety assistance in case the technical advice to the Slovenian authorities should not seem sufficient,
- advice and technical assistance in case of a significant nuclear incident or accident in Slovenia involving a US-supplied nuclear power plant

This Arrangement will enter into force two months following an exchange of letters to that effect by the Parties It will remain in force for a period of five years which can be extended by *written agreement of the Parties*

MULTILATERAL AGREEMENTS

Nuclear Third Party Liability Conventions

The Conventions governing nuclear third party liability at international level are the Paris Convention on Third Party Liability in the Field of Nuclear Energy and its Brussels Supplementary Convention, and the Vienna Convention on Civil Liability for Nuclear Damage The Joint Protocol links the Paris and Vienna Convention, thus extending their geographical scope and providing for greater protection of potential victims of a nuclear accident The tables below give the status of these instruments

PARIS CONVENTION ON THIRD PARTY LIABILITY IN THE FIELD OF NUCLEAR ENERGY AND BRUSSELS SUPPLEMENTARY CONVENTION

The Paris Convention of 29 July 1960 has a regional vocation ipso facto and entered into force on 1 April 1968 The Brussels Convention of 31 January 1963 Supplementary to the Paris Convention provides for additional compensation to that under the Paris Convention and entered into force on 4 December 1974 The following tables give the status of ratification or accession to both Conventions as at end October 1994

Paris Convention

Date of ratification or accession

Signatories	Convention	1964 Additional Protocol	1982 Protocol
Austria			
Belgium	3 Aug 1966	3 Aug 1966	19 Sept 1985
Denmark	4 Sept 1974	4 Sept 1974	16 May 1989
Finland (acc)	16 June 1972	16 June 1972	22 Dec 1989
France	9 Mar 1966	9 Mar 1966	6 July 1990
Germany	30 Sept 1975	30 Sept 1975	25 Sept 1985
Greece	12 May 1970	12 May 1970	30 May 1988
Italy	17 Sept 1975	17 Sept 1975	28 June 1985
Luxembourg			
Netherlands	28 Dec 1979	28 Dec 1979	1 Aug 1991
Norway	2 July 1973	2 July 1973	3 June 1986
Portugal	29 Sept 1977	29 Sept 1977	28 May 1984
Spain	31 Oct 1961	30 Apr 1965	7 Oct 1988
Sweden	1 Apr 1968	1 Apr 1968	8 Mar 1983
Switzerland			
Turkey	10 Oct 1961	5 Apr 1968	21 Jan 1986
United Kingdom	23 Feb 1966	23 Feb 1966	19 Aug 1985

Brussels Supplementary Convention

Date of ratification or accession

Signatories	Convention and 1964 Additional Protocol	Protocol 1982
Austria		
Belgium	20 Aug 1985	20 Aug 1985
Denmark	4 Sept 1974	10 May 1989
Finland (acc)	14 Jan 1977	15 Jan 1990
France	30 Mar 1966	11 July 1990
Germany	1 Oct 1975	25 Sept 1985
Italy	3 Feb 1976	14 June 1985
Luxembourg		
Netherlands	28 Sept 1979	1 Aug 1991
Norway	7 July 1973	13 May 1986
Spain	27 July 1966	29 Sept 1988
Sweden	3 Apr 1968	22 Mar 1983
Switzerland		
United Kingdom	24 Mar 1966	8 Aug 1985

VIENNA CONVENTION ON CIVIL LIABILITY FOR NUCLEAR DAMAGE

The Vienna Convention of 21 May 1963 on Civil Liability for Nuclear Damage has a world wide vocation and entered into force on 12 November 1977. The following table gives the status of signatures, ratifications, accessions to the Convention as at end October 1994.

Vienna Convention

Status of signatures ratifications accessions successions

<i>State</i>	<i>Date of Signature</i>	<i>Date of Deposit of Instrument</i>
Argentina	10 Oct 1966	25 Apr 1967 (ratif)
Armenia		24 Aug 1993 (access)
Bolivia		10 Apr 1968 (access)
Brazil		26 Mar 1993 (access)
Bulgaria		24 Aug 1994 (access)
Cameroon		6 Mar 1964 (access)
Chile*	18 Aug 1988	23 Nov 1989 (ratif)
Colombia	21 May 1963	
Croatia		29 Sept 1992 (succ notif)
Cuba	10 Dec 1964	25 Oct 1965 (ratif)
Czech Republic		24 Mar 1994 (access)
Egypt	19 Aug 1965	5 Nov 1965 (ratif)
Estonia		9 May 1994 (access)
Hungary		28 July 1989 (access)
Lithuania		15 Sept 1992 (access)
Macedonia		8 Apr 1994 (succ notif)
Mexico		25 Apr 1989 (access)
Morocco	30 Nov 1984	
Niger		24 July 1979 (access)
Peru		26 Aug 1980 (access)
Philippines	21 May 1963	15 Nov 1965 (ratif)
Poland		23 Jan 1990 (access)
Romania		29 Dec 1992 (access)
Slovenia		7 July 1992 (succ notif)
Spain	6 Dec 1963	
Trinidad & Tobago		31 Jan 1966 (access)
United Kingdom	11 Nov 1964	
Yugoslavia**	21 May 1963	12 Aug 1977 (ratif)

Succ = succession

* Indicates reservation/declaration

** On 28 Apr 1992 the Director General received a Note from the Permanent Mission of the Socialist Federal Republic of Yugoslavia informing him that inter alia the Federal Republic of Yugoslavia (Serbia and Montenegro) "shall continue to fulfil all the rights conferred to and obligations assumed by the Socialist Federal Republic of Yugoslavia in international relations including participation in international treaties ratified or acceded to by Yugoslavia"

JOINT PROTOCOL RELATING TO THE APPLICATION OF THE VIENNA CONVENTION AND THE PARIS CONVENTION

The Joint Protocol of 21 September 1988 relating to the Application of the Vienna Convention and the Paris Convention entered into force on 27 April 1992. The following table gives the status of signatures, ratifications, accessions to the Joint Protocol as at end October 1994.

Joint Protocol

Status of signatures ratifications acceptances approvals accessions

<i>State</i>	<i>Date of Signature</i>	<i>Date of Deposit of Instrument</i>
Argentina*	21 Sept 1988	
Belgium**	21 Sept 1988	
Bulgaria*		24 Aug 1994 (access)
Cameroon*	7 Dec 1988	28 Oct 1991 (ratif)
Chile*	21 Sept 1988	23 Nov 1989 (ratif)
Croatia*		10 May 1994 (access)
Czech Republic		24 Mar 1994 (access)
Denmark** ¹	21 Sept 1988	26 May 1989 (ratif)
Egypt*	21 Sept 1988	10 Aug 1989 (ratif)
Estonia*		9 May 1994 (access)
Finland**	21 Sept 1988	3 Oct 1994 (ratif)
France**	21 June 1989	
Germany**	21 Sept 1988	
Greece**	21 Sept 1988	
Hungary*	20 Sept 1989	26 Mar 1990 (approv)
Italy**	21 Sept 1988	31 July 1991 (ratif)
Lithuania*		20 Sept 1993 (access)
Morocco	21 Sept 1988	
Netherlands** ²	21 Sept 1988	1 Aug 1991 (accept)
Norway**	21 Sept 1988	11 Mar 1991 (ratif)
Philippines*	21 Sept 1988	
Poland*		23 Jan 1990 (access)
Portugal**	21 Sept 1988	
Romania*		29 Dec 1992 (access)
Spain**	21 Sept 1988	
Sweden**	21 Sept 1988	27 Jan 1992 (ratif)
Switzerland**	21 Sept 1988	
Turkey**	21 Sept 1988	
United Kingdom**	21 Sept 1988	

* Vienna Convention State

** Paris Convention State

¹ Does not include the Faroe Islands

² For the Kingdom in Europe

TLATELOLCO TREATY FOR THE PROHIBITION OF NUCLEAR WEAPONS IN LATIN AMERICA AND THE CARIBBEAN

During 1994 the Tlatelolco Treaty of 14 February 1967 for the Prohibition of Nuclear Weapons in Latin America and the Caribbean entered into force in three new countries Argentina (18 January) Chile (18 January) and Brazil (30 May) (see Nuclear Law Bulletin Nos 6 14 and 29)

However, the positions of the three countries regarding the Treaty were not identical Argentina ratified the Treaty on 10 November 1993 and in accordance with its Article 28(2) declared that it would enter into force for it automatically Brazil and Chile had not made a declaration in accordance with Article 28(2) when they ratified it (Brazil in 1968 and Chile in 1974) The Treaty entered into force for both countries only when they made their respective declarations in 1994 as explained above

At present there are twenty-seven countries which have undertaken that any production or use of nuclear weapons was prohibited on their territory Also, the Cuban Government has declared that Cuba would become a Party to the Tlatelolco Treaty as soon as it entered into force in Argentina and Brazil and some action in this respect is therefore expected

The Tlatelolco Treaty is supplemented by two Additional Protocols (see Nuclear Law Bulletin Nos 6, 14 and 29) Protocol No I (ratified by France the Netherlands, the United Kingdom and the United States) extends the Treaty's obligations to countries which are outside its geographical area but which discharge international obligations therein The purpose of Protocol No II (ratified by China France the United Kingdom, the United States and the USSR) is to guarantee observance of the nuclear-free zone by nuclear-weapon States

The Treaty has been amended three times to date On 3 July 1990 and 10 May 1991 to accept new Parties (Caribbean area and Belize) and, more recently on 26 August 1992 These latter amendments which concern Articles 14-16 19 and 20 aim to improve controls avoid duplication with the IAEA inspections and provide a better protection of industrial secrets

The following table gives the status of the Treaty as on 11 October 1994

Tlatelolco Treaty

Contracting Parties	Treaty	Date of ratification/ accession/approval	
		1990/91 Amendments	1992 Amendment
Antigua and Barbuda	11 Oct 1983		
Argentina	18 Jan 1994	18 Jan 1994	18 Jan 1994
Bahamas	26 Apr 1977		
Barbados	25 Apr 1969		
Bolivia	18 Feb 1969		
Brazil	29 Jan 1968	30 May 1994	30 May 1994
Colombia	4 Aug 1972		
Costa Rica	25 Aug 1969		
Chile	9 Oct 1974	18 Jan 1994	18 Jan 1994
Dominica	4 June 1993		
Dominican Republic	14 June 1968		
Ecuador	11 Feb 1969		
El Salvador	22 Apr 1968	22 May 1992	
Grenada	20 June 1975	17 Sept 1991	
Guatemala	6 Feb 1970		

Contracting Parties	Treaty	Date of ratification/ accession approval	
		1990/91 Amendments	1992 Amendment
Haiti	23 May 1969		
Honduras	23 Sept 1968		
Jamaica	26 June 1969	13 Mar 1992	
Mexico	20 Sept 1967	24 Oct 1991/ 10 Apr 1992	1 Sept 1993
Nicaragua	24 Oct 1968		
Panama	11 June 1971		
Paraguay	19 Mar 1969		
Peru	4 Mar 1969		
St Vincent & the Grenadines	14 Feb 1992		
Suriname	10 June 1977	13 June 1994	13 June 1994
Trinidad & Tobago	3 Dec 1970		
Uruguay	20 Aug 1968	30 Aug 1994	
Venezuela	23 Mar 1970		

Additional Protocol I

Contracting Parties	Date of Ratification
France	24 Aug 1992
Netherlands	26 July 1971
United Kingdom	11 Dec 1969
United States	23 Nov 1981

Protocol II

Contracting Parties	Date of Ratification
China People's Republic of	12 June 1974
France	22 Mar 1974
United Kingdom	11 Dec 1969
United States	12 May 1971
USSR	8 Jan 1979

TEXTS AND REPORTS

TEXTS

USA - DPRK

Agreed framework between the United States of America and the Democratic People's Republic of Korea

*Geneva, October 21, 1994
[IAEA INFCIRC/457]*

Delegations of the Governments of the United States of America (U S) and the Democratic People's Republic of Korea (DPRK) held talks in Geneva from September 23 to October 21 1994 to negotiate an overall resolution of the nuclear issue on the Korean Peninsula

Both sides reaffirmed the importance of attaining the objectives contained in the August 12 1994 agreed statement between the U S and the DPRK and upholding the principles of the June 11, 1993 joint statement of the U S and the DPRK to achieve peace and security on a nuclear-free Korean Peninsula The U S and DPRK decided to take the following actions for the resolution of the nuclear issue

I Both sides will co operate to replace the DPRK's graphite moderated reactors and related facilities with light-water reactor (LWR) power plants

- 1) In accordance with the October 20, 1994 letter of assurance from the U S President the U S will undertake to make arrangements for the provision to the DPRK of a LWR project with a total generating capacity of approximately 2 000 MW(e) by a target date of 2003

The U S will organize under its leadership an international consortium to finance and supply the LWR project to be provided to the DPRK The U S representing the international consortium, will serve as the principal point of contact with the DPRK for the LWR project

- The U S representing the consortium will make best efforts to secure the conclusion of a supply contract with the DPRK within six months of the date of this document for the provision of the LWR project Contract talks will begin as soon as possible after the date of this document

As necessary the U S and the DPRK will conclude a bilateral agreement for co operation in the field of peaceful uses of nuclear energy

- 2) In accordance with the October 20, 1994 letter of assurance from the U S President the U S representing the consortium, will make arrangements to offset the energy foregone

due to the freeze of the DPRK's graphite-moderated reactors and related facilities, pending completion of the first LWR unit

- Alternative energy will be provided in the form of heavy oil for heating and electricity production
- Deliveries of heavy oil will begin within three months of the date of this document and will reach a rate of 500,000 tons annually, in accordance with an agreed schedule of deliveries

3) Upon receipt of U S assurances for the provision of LWR's and for arrangements for interim energy alternatives, the DPRK will freeze its graphite-moderated reactors and related facilities and will eventually dismantle these reactors and related facilities

- The freeze on the DPRK's graphite-moderated reactors and related facilities will be fully implemented within one month of the date of this document. During this one-month period, and throughout the freeze, the International Atomic Energy Agency (IAEA) will be allowed to monitor this freeze and the DPRK will provide full co-operation to the IAEA for this purpose
- Dismantlement of the DPRK's graphite-moderated reactors and related facilities will be completed when the LWR project is completed
- The U S and DPRK will co-operate in finding a method to store safely the spent fuel from the 5 MW(e) experimental reactor during the construction of the LWR project, and to dispose of the fuel in a safe manner that does not involve reprocessing in the DPRK

4) As soon as possible after the date of this document, U S and DPRK experts will hold two sets of experts talks

- At one set of talks, experts will discuss issues related to alternative energy and the replacement of the graphite-moderated reactor program with the LWR project
- At the other set of talks, experts will discuss specific arrangements for spent fuel storage and ultimate disposition

II The two sides will move toward full normalization of political and economic relations

- 1) Within three months of the date of this document both sides will reduce barriers to trade and investment, including restrictions on telecommunications services and financial transactions
- 2) Each side will open a liaison office in the other's capital following resolution of consular and other technical issues through expert level discussions
- 3) As progress is made on issues of concern to each side, the U S and DPRK will upgrade bilateral relations to the ambassadorial level

III Both sides will work together for peace and security on a nuclear-free Korean Peninsula

- 1) The U S will provide formal assurances to the DPRK against the threat or use of nuclear weapons by the U S

- 2) The DPRK will consistently take steps to implement the North South Joint Declaration on the Denuclearization of the Korean Peninsula
 - 3) The DPRK will engage in North-South dialogue, as this agreed framework will help create an atmosphere that promotes such dialogue
- IV Both sides will work together to strengthen the international nuclear non proliferation regime
- 1) The DPRK will remain a party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and will allow implementation of its Safeguards Agreement under the Treaty
 - 2) Upon conclusion of the supply contract for the provision of the LWR project ad hoc and routine inspections will resume under the DPRK s Safeguards Agreement with the IAEA with respect to the facilities not subject to the freeze Pending conclusion of the supply contract, inspections required by the IAEA for the continuity of safeguards will continue at the facilities not subject to the freeze
 - 3) When a significant portion of the LWR project is completed but before delivery of key nuclear components, the DPRK will come into full compliance with its Safeguards Agreement with the IAEA (INFCIRC/403), including taking all steps that may be deemed necessary by the IAEA, following consultations with the Agency with regard to verifying the accuracy and completeness of the DPRK's initial report on all nuclear material in the DPRK

REPORTS

AUSTRIA

Austrian Position Paper on Euratom*

1 Austria's general policy in the field of nuclear energy

In principle Austria agrees to and is in a position to adopt the acquisitions and experience in the area of Euratom

As a consequence of a 1978 referendum on the peaceful use of nuclear energy, Austrian law prohibits the construction or operation of installations whose object is to produce electricity by nuclear fission for energy supply Austria will maintain this legal status also after its accession to the European Union

* This report was prepared by the Austrian Federal Chancellery in the context of negotiations for Austria's accession to the European Union

Taking into account the determination of Austria's population to prohibit nuclear power generation the Austrian Federal Government is striving to take on the task of a peacemaker in the efforts to create a nuclear free zone in Central Europe. Thus Austria would contribute to improving the possibilities of Central and Eastern European countries to renounce the use of nuclear energy. In this context bilateral activities aimed at reducing the potential dangers for neighbouring countries of nuclear installations near boundaries take precedence.

In international organisations as well as in international negotiations Austria endeavours - proceeding from established international law - to foster the instruments of international law in the light of growing needs for security and for purposes of environmental protection.

Another essential instrument is co-operation with other States, based on bilateral information agreements concerning issues of nuclear security and radiation protection. Austria intends to focus its particular attention, also in future, on furthering the development of this co-operation.

In practice the European Union has no common policy related to the peaceful uses of nuclear energy, but limits its co-operation to security areas.

Austria welcomes the views expressed by representatives of the European Commission at the "clarification contacts" in December 1992 that the interpretation of the Euratom Treaty has been amended in the light of developments in the field of social and economic policy and that parts of the original goals of that Treaty have not experienced commonly shared developments.

Austria finds this attitude confirmed by views taken by several Member States of the European Union within the Union itself as well as towards third States. This is why Austria strives for an embodiment of this interpretation and of its attitude in a declaration in its accession to the Treaty. Also, as a future member of the European Union, Austria intends to maintain its policy in the field of nuclear energy as referred to above.

2 Safeguards

Austria agrees in principle to adopt the existing safeguards system of Euratom. Nonetheless, Austria plans to maintain its own National Safeguards Authority after its accession, in addition to the European system.

This Authority is of particular relevance with regard to the areas of "physical protection", "export control", "detection and control of nuclear material illegally transferred to Austria" and "further development of international safeguards".

To clarify the necessary details concerning the compatibility between the Euratom Safeguards Directorate in Luxembourg and the Austrian Safeguards Authority, talks on experts level are already being envisaged.

The accession to the European Union will require Austria to denounce the existing Safeguards Agreement with the IAEA which will then be superseded by the corresponding agreement between Euratom, its Member States and the IAEA.

With regard to its active non-proliferation policy which Austria intends to continue also after its accession, Austria considers its full participation in the information flow between all EU institutions involved and the EU Member States as early as possible as a highly desirable prerequisite for the success of these efforts.

Austria is particularly interested in participating in the work concerning the development of international safeguards in close co-operation with the Secretariat of the IAEA and the Euratom Safeguards Directorate

In this connection, the supply of nuclear material for the Austrian research reactors, which import their nuclear fuel from the United States, is also important. Due to Austria's accession to the European Union the co-operation agreement between it and the United States will be denounced, as Austria then will participate in the bilateral agreement between Euratom and the United States. The Euratom Supply Agency will, by that time, be included in the commercial supply contracts as a Contracting Party.

3 Physical Protection

Austria is a Party to the Convention on the Physical Protection of Nuclear Material which refers primarily to international shipments and not to national physical protection systems. All EU Member States as well as the Commission itself are Parties to this Convention.

Austria does not expect to meet any problems in this area with regard to its accession. In the framework of its active non-proliferation policy Austria, together with other States, will endeavour to promote the further development of the rules and mechanisms for national systems of physical protection.

4 Export controls

Like all Member States of the EU, Austria is a member of the "Zangger Committee" and of the "Nuclear Suppliers Group". Its commitments are based on the Non-Proliferation Treaty (NPT).

Austria welcomes the international determination to restrict traffic in strategic goods in the nuclear area in the interest of security policy as a decisive contribution to improve international nuclear security.

Austria therefore pursues with interest current work on a draft of a general EU regulation on export controls (which will also deal with the export of goods contained in the "Nuclear List" and in the "Dual Use List") and supports these efforts.

5 Radiation protection

5.1 Basic safety standards (dose limits)

The EU law concerning radiation protection is currently being revised on the basis of the Recommendations of the International Commission on Radiological Protection (ICRP 60).

Austria will adapt its legal norms to the new EU regulations after their entry into force (which will presumably take place at the earliest some time in 1994).

As the present Austrian basic safety standards in the field of radiation protection are stricter than those of the EU, Austria proposes the transitional periods specified below which are to secure that the stricter Austrian standards can be maintained until the entry into force of the new and at least equivalent EU regulations. Austria agrees, however, to reconsider the issue during these

transitional periods, together with the Commission, with respect to an earlier adoption of the standards in the relevant fields

- *Council Directive 80/836/Euratom of 15 July 1980* (amending the Directive laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation)

Austria proposes a transitional period until 31 December 1997 so as to carry out the above mentioned adaptation to the new basic safety standards of the EU

- *Council Regulation (Euratom) No 3954/87 of 22 December 1987* (laying down maximum permitted levels of radioactive contamination of foodstuffs and feedingstuffs following a nuclear accident or any other case of radiological emergency)

Austria proposes a transitional period until 31 December 2002 as the respective Austrian dose limits are mainly lower

- *Council Regulation (EEC) No 737/90 of 22 March 1990* (on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power station and

- *Council Regulation (EEC) No 598/92 of 9 March 1992* (establishing a list of products excluded from the application of Council Regulation (EEC) No 737/90)

As the corresponding Austrian dose limits are mainly lower than those of the EU, Austria proposes with regard to these regulations a transitional period until 31 December 1998, unless these regulations (which are currently bound to expire on 31 May 1995) are extended without taking into consideration the ICRP-60 Recommendations

5 2 Radiation protection system

Since the Member States of the European Union are obliged to establish and maintain a radiation protection system (Article 33 of the Euratom Treaty) and to communicate the results to the Joint Research Centre in ISPRA (Italy) Austria - like the other candidates for accession - is interested in participating in the respective committees as an observer, even before its accession

5 3 Nuclear safety

Austria is particularly interested in furthering safety criteria this interest is being displayed, among other things, in its active co-operation in the elaboration of the International Convention on Nuclear Safety in the framework of the IAEA, as well as in its co-operation in establishing a Nuclear Protocol in the framework of the European Energy Charter

Although the EU has not issued specific common rules on nuclear safety, Austria attaches great importance to the Council Decision of 22 July 1975 (on technological problems related to the safety of nuclear energy), as it corresponds to the Austrian efforts aimed at improving the exchange of information and the harmonization of safety regulations These aspects are gaining particular current importance with regard to the safety of Eastern European nuclear power plants which are regarded as a particular danger by the Austrian population

Although Austria welcomes the efforts made by the EU in the framework of the PHARE and TACIS programmes for the support of the reform process in Eastern Europe Austria emphasizes its interest in comparing analyses of the energy sector in order to identify the economically and ecologically best approaches

From the Austrian point of view the efficient utilization of energy and the development of non nuclear alternatives are of particular importance in this connection

6 Shipments of radioactive waste

Due to the result of the 1978 referendum Austria has renounced the use of nuclear fission for producing electricity this is why Austria has only a very small capacity for reprocessing or intermediate storage of low or medium level radioactive waste There is no final disposal facility for these wastes or any disposal capacity for high level nuclear wastes in Austria

Considering Council Directive 92/3/Euratom of 3 February 1992 (on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community) as well as the criteria of the EEC Draft Council Regulation on "shipments of radioactive material within the European Community" [COM(92)520], further the Decision of the European Court of Justice C-2/90 of 9 July 1992 Austria takes the view that as a future member of the European Union - it will not be obliged to permit the import of radioactive wastes from another Member State of the European Union or from a third State with the object of reprocessing intermediate or final disposal

7 Third party liability in the field of nuclear energy

As a country without nuclear power plants Austria's role in the case of a nuclear accident would primarily be that of an affected party For this reason Austria will initiate ratification of the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy if possible before its accession to the European Union

8 Irradiation of foodstuffs

In Austria - as in most Member States of the EU - the treatment of foodstuffs and additives with ionizing radiation is prohibited without a special permit

9 Nuclear research

Due to the fact that Article 130f of the Treaty establishing the European Economic Community as amended by the Treaty on the European Union, prescribes the promotion of all common research activities as an objective of the Community, Austria will adopt the acquisitions in this area (including the R&D framework programme)

As the fourth framework programme will be financed by the general budget of the EU Austria (as a future Member of the European Union) will also contribute to it In the area of nuclear research this implies the indirect participation in the financing of the research programmes "Safety of Nuclear Fission" and "Controlled Nuclear Fission"

The extent of a contingent direct participation in these programmes has yet to be determined by Austria As a Member State of the European Union, Austria will endeavour however within the framework of the common as well as of the national research policy - to move ahead in particular in the area of efficient utilization of energy and of renewable sources of energy

10 External nuclear relations

10 1 Bilateral information agreements

Austria considers that, taking into account Articles 105, 106 of the Euratom Treaty, all existing bilateral information agreements on nuclear security and radiation protection (except the 1969 co-operation agreement with the United States) will continue to remain in force

10 2 Headquarters Agreement with the IAEA

Austria considers that its accession to the European Union does not require the Headquarters Agreement with the IAEA to be amended and, in particular, that the facilities of the IAEA in the Seibersdorf Centre - due to their extra-territoriality - will not be subject to Euratom safeguards

Furthermore Austria is of the opinion that the agreements between Austria and the IAEA relating to other areas of security, as for instance the "Technical Subsidiary Agreements to the Headquarters Agreement", will continue to be subject to implementation only by the Austrian Authorities and the IAEA

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Recueil de législation et de réglementation des activités nucléaires, Commissariat à l'Energie Atomique, Paris, 1994, two volumes, 1200 pages

The Legal and Commercial Relations Directorate of the Commissariat à l'Energie Atomique (CEA) has published an updated version of the compilation of legislative and regulatory texts in the nuclear field

This compilation was published the first time in 1983 and was last updated in 1989. It has now been thoroughly revised.

The new edition includes not only the international conventions, laws and decrees which apply specifically to nuclear activities in the industrial, scientific or medical fields but also - and this is new - several provisions of a general nature which have a direct impact on such activities, namely concerning the environment and wastes.

As emphasized by Professor Gaudemet in the Foreword, this compilation reflects the recent multiplication of legislative and regulatory texts on environmental protection. The book is therefore much thicker: it is in two volumes and can be easily updated with loose leaf pages.

This reconstructed compilation should be a useful tool for all those who have to apply complex legislation or wish to reflect on its evolution.

NETHERLANDS

The hazards arising out of the peaceful use of nuclear energy, Hague Academy of International Law, Martinus Nijhoff Publishers, Dordrecht, 1993, 311 pages

This is a study of the hazards arising out of the peaceful use of nuclear energy and is included in the series of publications of the Centre for Studies and Research in International Law and International Relations of the Hague Academy of International Law. It is a follow-up of a Seminar organised at the Academy in September 1993 for experts in international law. The authors, who directed the Seminar, are two acknowledged experts in the field of nuclear law: Pierre Strohl, Director of Studies of the French-speaking Section of the Centre, and Norbert Pelzer, Director of Studies of

the English-speaking Section, present the current state of research carried out by the French and English Section respectively

Pierre Strohl after examining the concept of "the nuclear risk", makes an original and perceptive in-depth study of all the questions related to prevention and management of this type of risk on the one hand and of those related to the problem of compensation of damage caused by a nuclear incident on the other. In other words, he makes a sharp distinction between the regulation of nuclear safety and the legal regime governing the third party liability of the operator of a nuclear installation. The Appendix to his report sums up the views and suggestions of the participants put forward during their work.

Norbert Pelzer analyses the problem of the hazards arising from the peaceful use of nuclear energy, by subject-matter, with the present situation as a starting point and highlights the gaps and drawbacks in each branch of nuclear law. The topics dealt with concern international co-operation in the nuclear field, prevention of misuse of nuclear energy, nuclear safety, nuclear third party liability and radioactive waste management.

This book which provides a thorough and documented analysis of the international law on nuclear energy should provide a very useful tool for all lawyers interested in the study of this discipline.

OECD NUCLEAR ENERGY AGENCY

Liability and compensation for nuclear damage - an international overview, published by the OECD Nuclear Energy Agency, Paris, 1994, 201 pages

This new NEA publication was prepared with the collaboration of Louise de La Fayette, an expert in international law at the Department of Foreign Affairs and International Trade of Canada.

A review of the origin of the civil nuclear liability concept, is followed by a description of the international nuclear third party liability and compensation régime, the nuclear insurance arrangements and some selected national legislative systems. Current issues still pending in this field are also analysed: the accident at Chernobyl and the need to improve the present civil nuclear liability system, unresolved problems, modernisation of the civil nuclear liability régime, an international scheme for supplementary funding for further compensation of victims.

The book is supplemented by a series of Annexes reproducing the full texts of the international conventions dealing with the civil nuclear liability régime: namely the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy and its 1963 Brussels Supplementary Convention, the 1963 Vienna Convention on Civil Liability for Nuclear Damage, the 1988 Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention.

INTERNATIONAL ATOMIC ENERGY AGENCY

**Agreements registered with the International Atomic Energy Agency, Eleventh Edition
Legal Series No 3, IAEA, Vienna, 1994, 278 pages**

In accordance with its Statute, all agreements between the IAEA and any members or organisations, or agreements between members subject to approval by the IAEA must be registered with it. The Director General of the Agency must inform the Member States and the Secretary General of the United Nations of such agreements. This publication has been issued to comply with this requirement and lists all the agreements concluded up to 31 December 1993.

The book is divided into three parts. Part I consists of a chronological list, by date of entry into force, of all the agreements registered with the IAEA. Part II is devoted to six multilateral agreements for which the Agency is the depositary, they are already listed in Part I but information on the signatories and parties is given in Part II. Part III is the Country Annex, with an additional section including international organisations and other parties with which the Agency has concluded agreements, and gives a tabular, alphabetical presentation of the information set out in the other two Parts.

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