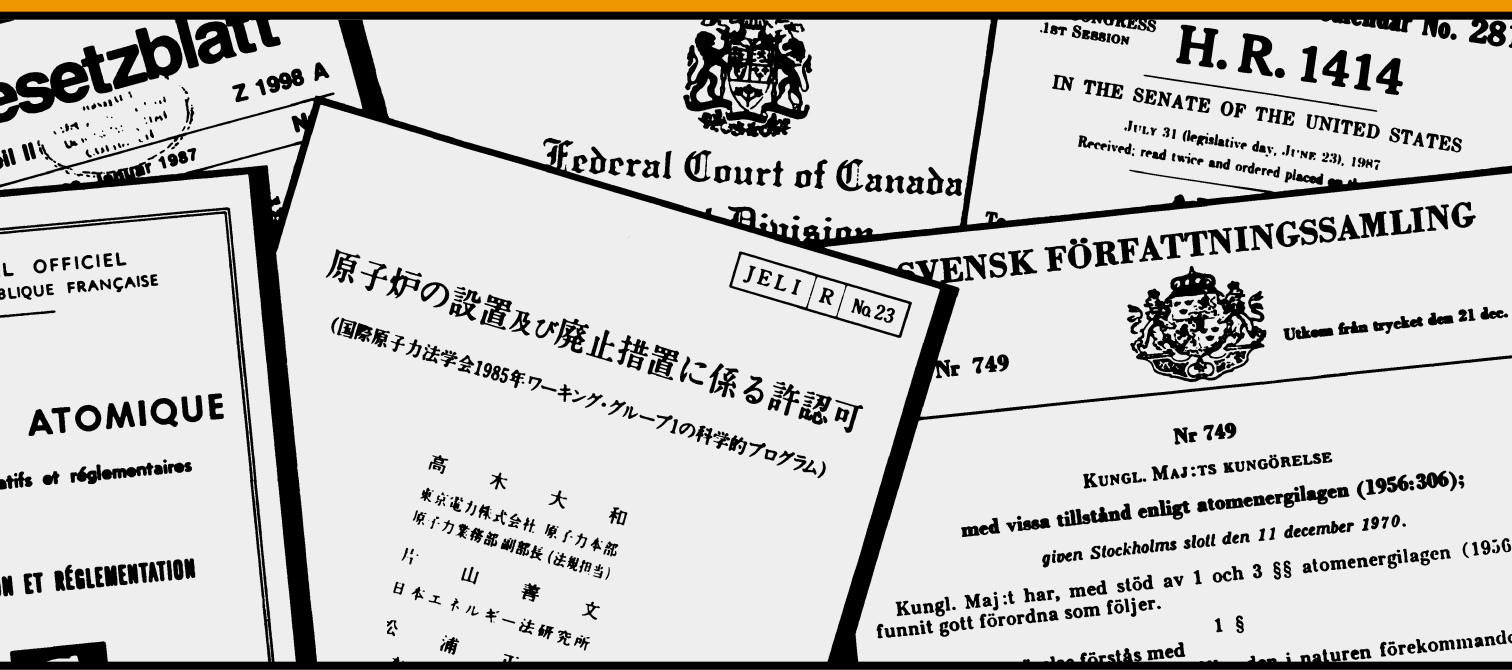
NUCLEAR LAW



BULLETIN 64/DECEMBER 1999

NUCLEAR ENERGY AGENCY

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Organisation for Economic Co-operation and Development

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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

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

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996) and the Republic of Korea (12th December 1996). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

NUCLEAR ENERGY AGENCY

The OECD Nuclear Energy Agency (NEA) was established on 1st February 1958 under the name of the OEEC European Nuclear Energy Agency. It received its present designation on 20th April 1972, when Japan became its first non-European full Member. NEA membership today consists of 27 OECD Member countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Portugal, Republic of Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities also takes part in the work of the Agency.

The mission of the NEA is:

- to assist its Member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes, as well as
- to provide authoritative assessments and to forge common understandings on key issues, as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.

Specific areas of competence of the NEA include safety and regulation of nuclear activities, radioactive waste management, radiological protection, nuclear science, economic and technical analyses of the nuclear fuel cycle, nuclear law and liability, and public information. The NEA Data Bank provides nuclear data and computer program services for participating countries.

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

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The 1968 Brussels Convention and Liability for Nuclear Damage

by Philippe Sands and Paolo Galizzi*

1. Introduction

The legal regime governing civil liability for transboundary nuclear damage is expressly addressed by two instruments adopted in the 1960s: the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy (hereinafter referred to as "the Paris Convention")[1] and the 1963 Vienna Convention on Civil Liability for Nuclear Damage (hereinafter referred to as "the Vienna Convention").[2] These establish particular rules governing the jurisdiction of national courts and other

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1. The Paris Convention was negotiated and concluded on 29 June 1960 under the auspices of the OECD Nuclear Energy Agency (NEA) with the aim of providing adequate protection to the public from possible damage caused by activities in the field of nuclear energy. The drafters of the Convention wanted also to ensure that the burden of liability would not inhibit the growth of the nuclear industry. It entered into force on 1 April 1968 and was revised by an Additional Protocol of 28 January 1964 to bring it closer to the Vienna Convention and by a Protocol of 16 November 1982 to bring the Convention up-to-date, particularly by replacing the unit of account for compensation with the Special Drawing Rights (SDRs) of the International Monetary Fund (approximately USD 1). The following States are party to the Convention: Belgium, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Turkey and the United Kingdom. The text of the Paris Convention, as amended by the 1964 and 1982 Protocols, can be found in the OECD/NEA brochure entitled *Paris Convention on Third Party Liability in the Field of Nuclear Energy – Brussels Convention Supplementary to the Paris Convention*, Paris, 1989, and in P. SANDS, R. TARASOFSKY AND M. WEISS, (Eds.), *Documents in International Environmental Law*, vol. IIB, (1994), pp. 1385-1401. For a general analysis of this Convention see P. W. BIRNIE AND A. E. BOYLE, *International Law and the Environment*, (1992), pp. 371-386; P. SANDS, *Principles of International Environmental Law I. Frameworks, standards and implementation*, (1995), pp. 653-657.

2. The Vienna Convention was negotiated under the auspices of the International Atomic Energy Agency (IAEA) and was concluded on 21 May 1963. It entered into force on 12 November 1977. The Convention also includes an Optional Protocol providing a dispute settlement mechanism, which has not yet entered into force. As of 13 April 1999, the 32 Contracting Parties to the Vienna Convention are: Argentina, Armenia, Belarus, Bolivia, Bosnia and Herzegovina, Brazil, Bulgaria, Cameroon, Chile, Croatia, Cuba, Czech Republic, Egypt, Estonia, Hungary, Latvia, Lebanon, Lithuania, Mexico, Niger, Peru, Philippines, Poland, Republic of Moldova, Romania, Slovakia, Slovenia, the former Yugoslav Republic of Macedonia, Trinidad and Tobago, Ukraine, Uruguay, Yugoslavia (Serbia and Montenegro). The text of the Convention can be found in IAEA INFCIRC/500 of 20 March 1996 and in P. SANDS, R. TARASOFSKY AND M. WEISS, (Eds.), *Documents in International Environmental Law*, vol. IIB, (1994), pp. 1413-1429.

matters, including channelling of liability to nuclear operators, definitions of nuclear damage, the applicable standard of care, and limitations on liability. Another instrument – the 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters (hereinafter referred to as "the Brussels Convention")[3] – which is not often mentioned in the nuclear context will nevertheless also be applicable in certain cases. It is premised upon different rules as to forum and applicable law, and presents an alternate vision of the appropriate arrangements governing civil liability for nuclear damage. In this paper we consider the relative merits and demerits of the Brussels Convention from the perspective of non-nuclear states which might suffer damage as a result of a nuclear accident in another state. We conclude that in the context of the applicability of the Brussels Convention the dedicated nuclear liability conventions present few attractions to non-nuclear states in Europe.

We focus in particular on issues relating to jurisdiction and applicable law, and do so by reference to a hypothetical accident in the United Kingdom which has transboundary effects in Ireland. We are principally concerned with two questions: which courts have jurisdiction over private claims for the damage caused in these various countries,[4] and which law will the competent courts apply? These questions may be posed in the broader context of an overarching question, namely whether non-nuclear states (and those within their jurisdiction) have any incentive to abandon the approach of the Brussels Convention and subscribe to the regimes established by the Paris and Vienna conventions. Our conclusion is that non-nuclear states are unlikely to gain much from participating in the Paris and Vienna regime, and their citizens may well be better off relying on the 1968 Brussels Convention where it is applicable.

In this paper we begin by summarising the approach of the Paris and Vienna Conventions (Sections 2 and 3). We will then analyse the jurisdictional rules applicable to accidents and damage occurring in States which are not party to one of the two dedicated international nuclear regimes, concentrating our attention on the rules applicable in the European context, rules which, we will argue, can be found in the 1968 Brussels Convention (Section 4). Finally, we will look at the solutions given to some of the issues analysed in this article, issues addressed by the Irish courts in an ongoing case (Section 5).

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3. The Brussels Convention entered into force on 1 February 1973 for the six original Member States of the European Community (Belgium, France, Germany, Italy, Luxembourg and the Netherlands). The new Member States of the Community had the obligation to join the Convention, which was amended in 1978 for the accession of Denmark, Ireland and the United Kingdom, in 1982 for the accession of Greece and finally in 1989 for the accession of Spain and Portugal. The three most recent Member States, Austria, Finland and Sweden will have to accede to the Convention and therefore further negotiations will be needed. The text of the amended version of the Convention can be found in the *OJEC* C 189 of 20 July 1990, pp. 1-20. The Report on the 1968 original version of the Convention (*Jenard Report*) is reproduced in *OJEC* C 59 of 5 March 1979, pp. 1-70. The Report on the 1978 Accession Convention (*Schlosser Report*) is reproduced in *OJEC* C 59 of 5 March 1979, pp. 71-151. The bibliography on this Convention is broad. For a general view see, *inter alia*, P. GOTHOT AND D. HOLLEAUX, *La Convention de Bruxelles du 27 septembre 1968*, (1985); P. KAYE, *Civil Jurisdiction and Enforcement of Foreign Judgements*, (1987); J. KROPHOLLER, *Europäisches Zivilprozessrecht: Kommentar zum EuGVÜ*, 3rd ed., (1991); H. GAUDEMET-TALLON, *Les Conventions de Bruxelles et de Lugano*, (1993); A. L. CALVO CARAVACA, (Ed.), *Comentario al Convenio de Bruselas relativo a la competencia judicial y a la ejecucion de resoluciones judiciales en materia civil y mercantil*, (1994).

4. This study will only deal with questions raised by private claims and not with the problem of inter-State actions.

2. The 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy

2.1 The provisions on jurisdiction

Where a nuclear accident has occurred in a country which is a Party to the 1960 Paris Convention (the United Kingdom) and damage has been caused in a country which is also a Party to that Convention (for example France), then its provisions will apply. The courts of these States will apply the 1960 Convention as enacted in their legal system. Substantive and procedural matters not directly governed by the Convention will be determined by national legislation, as provided by Article 14 of the Convention.[5] Article 13 of the Paris Convention addresses jurisdiction, providing that:

> "Except as otherwise provided in this Article, jurisdiction over actions under Articles 3, 4, 6(a) and 6(e) shall lie only with the courts of the Contracting Party in whose territory the nuclear incident occurred."

This provision establishes a principle of exclusive jurisdiction: only the courts of the State where the incident occurred will have jurisdiction over actions brought for damage caused by a nuclear accident which occurred in such territory. In 1990 the Steering Committee[6] responsible for the Convention recommended that the Contracting Parties should "provide for a single court to be competent to rule on compensation under the Paris Convention for nuclear damage arising from any one nuclear incident; the criteria for this determination shall be decided by national legislation".[7] This recommendation has not yet been given conventional effect. Of course the rule in Article 13 only applies to actions brought under the Paris Convention and within its territorial scope.[8] By Article 2 the geographical scope of the Convention is limited to accidents which occur in the territory of the Contracting Parties and within which damage is also suffered.[9] The territory includes the territorial sea

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5. W.D. KRAUSE-ABLASS, "Apportioning Liability for Transborder Damages", in P. CAMERON, L. HANCHER AND W. KÜHN, (Eds.), *Nuclear Energy Law After Chernobyl*, (1988), p. 125.

6. The Steering Committee is the organ responsible for carrying out the tasks of the Nuclear Energy Agency (Article 2 of the Statute of the OECD/NEA). According to Articles 8(b)(i) and 10(b) of the Statute of the OECD/NEA, to which the 1990 Recommendation refers, the Steering Committee shall "submit to the participating countries recommendations or common rules to serve as a basis for harmonizing national laws and regulations" and it may "give its advice, in particular, in the form of recommendations, to participating countries on any question within its competence." For more detailed information on the functions and structure of the Steering Committee, see the Statute of the OECD/NEA reproduced in the OECD/NEA brochure entitled *Statute of the OECD Nuclear Energy Agency*, Paris, 1995, and in M. M. ELBARADEI, E. I. NWOGUGU AND J. M. RAMES, (Eds.), *The International Law of Nuclear Energy: Basic Documents*, (1993), pp. 21-30.

7. Recommendation of 3 October 1990 reproduced in the OECD/NEA brochure entitled *Paris Convention: Decisions, Recommendations, Interpretations*, p. 15, Paris, 1990, and in ELBARADEI, NWOGUGU AND RAMES, (Eds.), *op. cit. supra*, note 6, p. 1366.

8. OECD SECRETARIAT, "The Field of Application of the Nuclear Conventions", (1970), *Nuclear Law Bulletin* No. 5, p. 22; N. PELZER, "On Modernising the Paris Convention. Reasons for Revising the Paris Convention and Objectives", (1973), *Nuclear Law Bulletin* No. 12, p. 52; L. DE LA FAYETTE, "Towards a New Regime of State Responsibility for Nuclear Activities", (1992), *Nuclear Law Bulletin* No. 50, p. 11.

9. According to PELZER, *op. cit. supra* note 8, p. 52, "The Convention thereby enshrines in concrete form the strict principle of territoriality". On the territorial scope of the Convention see also Article 23.

of a State Party. It has also been recognised that the Convention is applicable to incidents which occur and to damage suffered on the high seas, provided that the operator who is liable is subject to the regime of the Convention.[10] The Parties may extend the territorial scope of the Convention by national legislation. Moreover, there are some exceptions to this rule, in particular in the case of carriage of nuclear substances (Article 4).[11] Even in such cases, or those in which it is not possible to establish with certainty the place where the incident occurred, the Convention determines that the courts which will have jurisdiction are those of the State where the nuclear installation of the operator who is liable is situated.[12]

In case of conflicts of jurisdiction, where jurisdiction could lie with the courts of more than one Contracting State, "if the incident occurred partly outside the territory of any Contracting Party and partly in the territory of a single Contracting Party, jurisdiction shall lie with the courts of the Contracting Party."[13] Finally, in any other case, a Contracting Party concerned can request the European Nuclear Energy Tribunal to determine which court is most closely related to the case in question.[14] The Convention also provides that the states against which an action is brought cannot invoke jurisdictional immunities, except in respect of measures of execution.[15]

2.2 The law applicable: the system of the Paris Convention

The Paris Convention also provides the substantive rules to be applied to claims arising out of incidents and damages occurring in its State Parties. By Article 6(a) the person liable for damage caused by a nuclear incident will be the operator of the nuclear installation at which the incident occurred. This rule "channels" liability exclusively onto the operator. This has two important consequences: first, the operator is liable only under the rules of the Convention and therefore no other grounds of liability can be relied upon; second, no other person – such as the supplier of parts – will be liable for the nuclear damage.[16]

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10. This interpretation has been adopted by the OECD Steering Committee for Nuclear Energy in its Recommendation of 25 April 1968: "The Paris Convention is applicable to nuclear incidents occurring on the high seas or suffered on the high seas". The text of this Recommendation is reproduced in the OECD/NEA brochure entitled *Paris Convention: Decisions, Recommendations, Interpretations*, p. 13, Paris, 1990, and in ELBARADEI, NWOGUGU AND RAMES, (Eds.), *op. cit. supra* note 6, p. 1360.

11. See also Article 6(e).

12. Article 13(b) provides that: "Where a nuclear incident occurs outside the territory of the Contracting Parties, or where the place of the nuclear incident cannot be determined with certainty, jurisdiction over such actions shall lie with the courts of the Contracting Party in whose territory the nuclear installation of the operator liable is situated".

13. Article 13(c)(i).

14. This Tribunal is the judicial body of the OECD Nuclear Energy Agency and was established by the Convention of 20 December 1957 on the Establishment of a Security Control in the Field of Nuclear Energy. According to Article 17 of the Paris Convention the Tribunal is also competent, upon the request of a Contracting Party and in the absence of a friendly settlement, to hear any dispute between two or more Contracting Parties on the interpretation and application of the Convention.

15. Article 13(e).

16. However, national legislation can provide a direct right of action against the insurer or other financial guarantor according to Article 6(a) of the Convention. According to Article 6(f), the operator has a right of recourse against an individual, but only if the incident was intentionally caused and in cases

By Article 3(a) the operator is liable for: "i) damage to or loss of life of any person; and ii) damage to or loss of any property ..., upon proof that such damage or loss was caused by a nuclear accident ...". The Convention expressly excludes the liability of the operator for on-site damage,[17] and provides no further guidance as to the concept of "nuclear damage". It is generally acknowledged that general environmental damage is not included within this concept,[18] but because of the silence of the Convention on this, several other problems arise.[19] Certain questions also arise in connection with the standard of proof as to the causal link between the damage and the incident: according to the Convention the liability of the operator is absolute once this element of causality is established, but there are various difficulties of proof (what methods can be used to ascertain liability, what is the threshold of the damage, etc.).[20] The Convention recognises these limits and provides that national law "shall apply to all matters both substantive and procedural not specifically governed by this Convention".[21] This *renvoi* to the national legislation of the Contracting Parties involves the risk of the Convention being applied differently in the Contracting States. In an attempt to avoid such problems, Article 14 specifies that national law "shall be applied without any discrimination based upon nationality, domicile, or residence".

There are several limitations placed on the operator's liability. There is a time limit on the bringing of actions for compensation, namely ten years from the date of the nuclear accident. It is possible for national legislation to provide for a longer period, but only if there is financial cover (insurance or other guarantees) for such a longer time.[22] This limitation has been strongly criticised, particularly because frequently many of the effects of nuclear damage do not become apparent until after ten years.[23] A second limitation is in the amount of compensation available: by Article 7 the

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expressly provided by contract. Suppliers to nuclear power plants are also generally exempt from liability. On these problems see N. PELZER, "Concepts of Nuclear Liability Revisited: A Post-Chernobyl Assessment of the Paris and Vienna Convention," in CAMERON, HANCHER AND KÜHN (Eds.), *op. cit. supra* note 5, p. 101 *et seq.*; W. KÜHN, "Liability of Suppliers to Nuclear Power Plants in Western Europe", in CAMERON, HANCHER AND KÜHN (Eds.), *op. cit. supra* note 5, p. 115 *et seq.*; OECD SECRETARIAT, "Potential Liability of Contractors Working on Nuclear Safety Improvement Projects in Central and Eastern Europe", (1994), *Nuclear Law Bulletin* No. 53, p. 36 *et seq.*

17. PELZER, *op. cit. supra* note 8, p. 50.

18. PELZER, *op. cit. supra* note 16, p. 111; DE LA FAYETTE, *op. cit. supra* note 8, p. 12; SANDS, TARASOFSKY, WEISS, (Eds.), *op. cit. supra* note 2, p. 1385.

19. J. M. LOPEZ OLACIREGUI, "Civil Liability and Nuclear Law", (1970), *Nuclear Law Bulletin* No. 5, p. 27; OECD SECRETARIAT, "The Accident at Chernobyl. Economic Damage and its Compensation in Western Europe", (1987), *Nuclear Law Bulletin* No. 39, p. 58 *et seq.*; C. HOLTZ, "The Concept of Property Damage and Related Issues in Liability Law. Possible Implications for the Paris Convention on Third Party Liability in the Field of Nuclear Energy", (1987), *Nuclear Law Bulletin* No. 40, p. 87 *et seq.*; DE LA FAYETTE, *op. cit. supra* note 8, p. 12 *et seq.*

20. J. HÉBERT, "Observations sur l'établissement du lien de causalité entre 'le fait ou la succession de faits de même origine' et les 'dommages' nécessaire à la mise en œuvre de la Convention de Paris sur la responsabilité civile dans le domaine de l'énergie nucléaire", *Proceedings of the 1984 Munich Symposium on Nuclear Third Party Liability and Insurance*, published by OECD, (1985), p. 241 *et seq.*; B. MOSER, *Proof of Damage from Ionizing Radiation*, (1986), *Nuclear Law Bulletin* No. 38, p. 70 *et seq.*; P. STAHLBERG, "Causation and the Problem of Evidence in Cases of Nuclear Damage", (1994), *Nuclear Law Bulletin* No. 53, p. 22 *et seq.*

21. Article 14(b). In the same sense see also Article 11.

22. Article 8.

23. MOSER, *op. cit. supra* note 20, p. 74 *et seq.*

maximum liability of the operator for a single accident cannot exceed 15 million SDRs,[24] although the Contracting Parties can establish by legislation a greater or lesser amount of compensation,[25] subject to an overall minimum of 5 million SDRs.[26] The operator is also required to have and maintain insurance or other financial security in order to guarantee that the compensation will be paid (Article 10).[27] It is self-evident that the amount of compensation available under the Paris Convention will be insufficient in the case of a major accident. Accordingly the Paris Convention has been supplemented by the Brussels Supplementary Convention, which provides for additional compensation from public funds in the event that compensation under the Paris Convention is insufficient.[28] Finally, the liability of the operator is excluded in the case of a nuclear incident which is caused directly by an act of armed conflict, hostilities, civil war, insurrection or, unless the contrary is established by national legislation, a grave natural disaster of an exceptional character (Article 9).[29]

2.3 Enforcement

A decision of a court which is competent under the Paris Convention, excluding *interim* judgements, will be enforceable in the territory of another Contracting Party once it has become

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24. Special Drawing Rights as defined by the International Monetary Fund.

25. The OECD Steering Committee recommended that the Contracting Parties should set the maximum liability of the operator at not less than 150 million SDRs.

26. It is interesting to note that Article 7(b)(i) of the Convention allows national legislation to establish a greater amount of compensation "taking into account the possibilities of the operator of obtaining the insurance or other financial security...". In this respect, when Germany recognised unlimited liability, there were doubts as to the compatibility of this regime with the Convention. On this point see PELZER, *op. cit. supra* note 16, p. 108 *et seq.*

27. J. K. PFAFFELHUBER AND B. KUCKUCK, "Standard Rules for Liability and Cover for Nuclear Installations", (1980), *Nuclear Law Bulletin* No. 25, p. 70 *et seq.*; W. BREINING, "Reform of Liability in Nuclear Law. Unlimited Liability does not Automatically Create Unlimited Cover", (1980), *Nuclear Law Bulletin* No. 25, p. 76 *et seq.*; J. DEPRIMOZ, "International Cooperation in Providing Insurance Cover for Nuclear Damage to Third Parties and for Damage to Nuclear Installations", (1983), *Nuclear Law Bulletin* No. 32, p. 33 *et seq.*; J. MARRONE, "Nuclear Liability Insurance. The Price-Anderson Reparations System and the Claims Experience of the Nuclear Industry", (1984), *Nuclear Law Bulletin* No. 33, p. 45 *et seq.*; see also the *Proceedings of the 1984 Munich Symposium on Nuclear Third Party Liability and Insurance*, *op. cit. supra* note 20.

28. The Paris and the Brussels Supplementary Conventions together provide for a maximum level of compensation of 300 million SDRs. This compensation is to be provided according to a three-tier structure: 1) compensation of at least 5 million SDRs which each Party is required to establish by law, which has to be provided from insurance or other financial guarantee; 2) compensation of up to 175 million SDRs to be provided from public funds of the Party in whose territory the nuclear installation is located; 3) compensation of up to 300 million SDRs from public funds jointly contributed by all the Parties to the Convention. The 1963 Brussels Supplementary Convention came into force on 4 December 1974 and was revised by two Protocols in 1964 and in 1982. The second Protocol increased the amount of compensation available. The State Parties must necessarily be Party to the Paris Convention. The Contracting States are: Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden and United Kingdom. The text of the Convention is reproduced in the OECD/NEA brochure entitled *Paris Convention on Third Party Liability in the Field of Nuclear Energy – Brussels Convention Supplementary to the Paris Convention*, Paris, (1989), and in SANDS, TARASOFSKY AND WEISS, (Eds.), *op. cit. supra* note 2, pp. 1401-1412.

29. PELZER, *op. cit. supra* note 16, p. 102 *et seq.*

enforceable under the law of the court that rendered it.[30] The Convention specifies that the merits of the case cannot be subject to review, but does not lay down any further requirements which will remain a matter for national legislation.

3. The 1963 Vienna Convention on Civil Liability for Nuclear Damage

3.1 The system of the Vienna Convention

An alternative set of rules concerning civil liability for nuclear damage is to be found in the 1963 Vienna Convention on Civil Liability for Nuclear Damage, adopted under the auspices of the IAEA. Its provisions are generally similar to those of the 1960 Paris Convention. The most significant difference between the two regimes is the different geographical application: the Vienna Convention has potentially a worldwide application (and has no provision on territorial scope of application), whereas accession to the Paris Convention is generally only open to Members or Associate countries of the OECD (see Article 21).

On almost all other rules the Vienna and Paris conventions differ only in minor detail.[31] The Vienna Convention provides for the exclusive jurisdiction of the courts of the State where the incident occurred (Article XI); it channels liability to the operator of the nuclear installation (Article II); provides for the absolute liability of the operator (Article IV); imposes a time limit for actions for compensation of 10 years from the date of the nuclear accident (Article VI); requires the operator of a nuclear installation to maintain insurance or other financial security to cover liability (Article VII); and provides for its provisions to be applied without discrimination based on nationality, domicile or residence (Article XIII). Differences between the two conventions are limited. This definition of "nuclear damage" is essentially similar to that of the Paris Convention. Article XII of the Vienna Convention provides for recognition of judgements given by the courts competent under Article XI. One minor difference: while the Paris Convention expressly excludes interim judgements from the application of its provisions on enforcement [Article 13(d)], the Vienna Convention is silent on this point and therefore it seems to be possible that such judgements might be included in its field of application. The amount of liability is established at a lower level than the Paris Convention (USD 5 million), but there is no provision for a maximum limit (Article V). Finally, the Vienna Convention has an Optional Protocol on compulsory settlement of disputes between the Contracting Parties relating to its interpretation or application.[32]

The Vienna Convention has been recently amended by a Protocol adopted on 12 September 1997, which is not yet in force.[33] The Protocol will modify several provisions of the

30. Article 13(d).

31. The Vienna Convention has been often analysed jointly with the Paris Convention by the authors cited *supra* in Section 2, to whom it is possible to refer for a more detailed analysis.

32. The Optional Protocol has not entered into force.

33. Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage adopted on 12 September 1997. As of 29 July 1999, there were 14 Signatories (Argentina, Belarus, Czech Republic, Hungary, Indonesia, Italy, Lebanon, Lithuania, Morocco, Peru, Philippines, Poland, Romania, Ukraine) and 2 Contracting Parties (Morocco and Romania) to the Protocol. Pursuant to Article 21.1, the Protocol "shall enter into force three months after the date of deposit of the fifth instrument of ratification, acceptance or approval". The text of the Protocol can be found, inter alia, on the site of the IAEA «www.iaea.org/worldatom». On the Protocol see V. LAMM, "The Protocol Amending the 1963 Vienna Convention", (1998), *Nuclear Law Bulletin* No. 61, p. 7 *et seq.*

1963 Vienna Convention (for example the time limit for actions for compensation with respect to loss of life and personal injury will be increased to thirty years from the date of the nuclear incident). For present purposes it is appropriate to draw attention to modifications relating to jurisdiction and enforcement of judgements. Article 12 of the Protocol will amend Article XI of the 1963 Vienna Convention by adding a new paragraph 1bis, dealing with incidents occurring in the exclusive economic zone of Contracting Parties.[34] The Protocol will also require Contracting Parties "to ensure that only one of its courts shall have jurisdiction in relation to any one nuclear incident."[35] Article 13 of the Protocol will introduce a new Article XI A to the Vienna Convention, requiring the Contracting Parties whose courts have jurisdiction to ensure that in relation to actions for compensation of nuclear damage:

> "a) any State may bring an action on behalf of persons who have suffered nuclear damage, who are nationals of that State or have their domicile or residence in its territory, and who have consented thereto; and
>
> b) any person may bring an action to enforce rights under this Convention acquired by subrogation or assignment."

The Protocol will also replace the existing version of Article XII of the Vienna Convention which provides rules on recognition and enforcement of judgements, without significantly modifying its content.[36]

The regime of the Vienna Convention will be integrated by the Convention on Supplementary Compensation for Nuclear Damage, also adopted on 12 September 1997.[37] All States

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34. Article XI.1 bis will provide: "Where a nuclear incident occurs within the area of the exclusive economic zone of a Contracting Party or, if such zone has not been established, in an area not exceeding the limits of an exclusive economic zone, were one to be established, jurisdiction over actions concerning nuclear damage from that nuclear incident shall, for the purposes of this Convention, lie only with the courts of that Party. The preceding sentence shall apply if that Contracting Party has notified the Depositary of such area prior to the nuclear incident. Nothing in this paragraph shall be interpreted as permitting the exercise of jurisdiction in a manner which is contrary to the international law of the sea, including the United Nations Convention on the Law of the Sea." See A. GIOIA, "Maritime Zones and the New Provisions on Jurisdiction in the 1997 Vienna Protocol and in the 1997 Convention on Supplementary Compensation", (1999), *Nuclear Law Bulletin* No. 63, p. 25 *et seq.*

35. Article XI.4 of the Vienna Convention as modified by Article 12 of the Protocol.

36. The new text of Article XII specifies that recognition shall be given to "a judgement that is no longer subject to ordinary forms of review entered by a court of a Contracting Party having jurisdiction", whilst the previous version of Article XII referred only to "a final judgement", without specifying when a judgement had to be considered final. The exceptions to the obligation of recognition of judgements remain the same.

37. Convention on Supplementary Compensation for Nuclear Damage, adopted on 12 September 1997. As of 29 July 1999, there were 13 Signatories (Argentina, Australia, Czech Republic, Indonesia, Italy, Lebanon, Lithuania, Morocco, Peru, Philippines, Romania, Ukraine, United States) and 2 Contracting Parties (Morocco and Romania) to the Convention. The Convention, pursuant to Article XX.1, "shall come into force on the ninetieth day following the date on which at least 5 States with a minimum of 400 000 units of installed nuclear capacity have deposited an instrument referred to in Article XVIII". The text of the Convention can be found on the web site of the IAEA (www.iaea.org/worldatom). On the Supplementary Convention see B. McRAE, "The Compensation Convention: Path to a Global Regime for Dealing with Legal Liability and Compensation for Nuclear Damage", in (1998), *Nuclear Law Bulletin* No. 61, p. 25 *et seq.*

may adhere to the Supplementary Convention regardless of whether they are parties to any existing nuclear liability regime.[38] The Supplementary Convention applies to nuclear damage for which an operator of a nuclear installation situated in a Contracting Party is liable under either the Vienna or the Paris Conventions or under national law. This new instrument aims at supplementing the system of compensation provided by the national legislation implementing either the Vienna or the Paris Convention or by national legislation which complies with the requirements laid down in an Annex to the Convention itself.[39] The Supplementary Convention requires that compensation for nuclear damage shall be ensured by the Installation State for an amount of 300 million SDRs (or a greater amount it may have specified to the Depositary) and beyond such amount provides that the Contracting Parties shall make available public funds[40] (to be provided through contributions by State Parties on the basis of installed nuclear capacity and UN rate assessment).[41]

Article XIII of the Supplementary Convention provides the rules on jurisdiction and specifies that: "Except as otherwise provided in this article, jurisdiction over actions concerning nuclear damage from a nuclear incident shall lie only with the courts of the Contracting Party within which the nuclear incident occurs."[42] Jurisdiction for incidents occurring within the exclusive economic zone of a Contracting State shall lie with the courts of such a Party, if such area has been notified to the Depositary prior to the nuclear incident.[43] Where the incident does not occur within the territory of any Contracting Party or where the place of a nuclear incident cannot be precisely determined, jurisdiction shall lie with the courts of the Installation State.[44] In case of concurring jurisdiction of the courts of more than one Contracting Party, an agreement shall determine which Contracting Party's courts shall have jurisdiction.

Articles XIII.5 and XIII.6 specify the requirement for the recognition and enforcement of judgements: a judgement given by a court of a Contracting Party having jurisdiction and no longer subject to ordinary forms of review shall be recognised unless it was obtained by fraud, or the party against which the judgement was given had not a fair opportunity to present his case, or the judgement is contrary to public policy of the recognising State or is not in accord with fundamental standard of justice. Once the judgement has been recognised, it shall be enforced according with the formalities required by the law of the Contracting Party where enforcement is sought. Such judgement will be enforceable as if it were a judgement of a court of such enforcing Party.

38. Article XVIII.1 specifies that "This Convention shall be subject to ratification, acceptance or approval by the signatory States. An instrument of ratification, acceptance or approval shall be accepted only from a State which is a Party to either the Vienna Convention or the Paris Convention, or a State which declares that its national law complies with the provisions of the Annex to this Convention, provided that, in the case of a State having on its territory a nuclear installation as defined in the Convention on Nuclear Safety of 17 June 1994, it is a Contracting State to that Convention."

39. Article II.

40. Article III.

41. Article IV.

42. Article XIII.1.

43. Article XIII.2.

44. Article XIII.3.

Finally, according to Article XIV of the Supplementary Convention:

"1. Either the Vienna Convention or the Paris Convention or the Annex to this Convention, as appropriate, shall apply to a nuclear incident to the exclusion of the others.

2. Subject to the provisions of this Convention, the Vienna Convention or the Paris Convention, as appropriate, the applicable law shall be the law of the competent court."

3.2 The relationship between the 1960 Paris Convention and the 1963 Vienna Convention: the 1988 Joint Protocol

The Paris and Vienna Conventions are linked by a 1988 Joint Protocol.[45] In case of an accident in a State Party to one of the two Conventions, the Joint Protocol provides for the extension of the application of that Convention to which the State where the incident occurred is a party to the damage suffered in the States Parties of the other Convention. The Protocol also provides that the application of one of the two Conventions shall exclude the application of the other.[46] For example, a nuclear accident in the Netherlands (a party to the Paris Convention and the 1988 Joint Protocol) causing damage in Hungary (a party to the Vienna Convention and the 1988 Joint Protocol) will be regulated by the provisions of the Paris Convention. In such a case the Dutch courts will have exclusive jurisdiction to hear the actions for compensation of the damage suffered in Hungary.

4. The 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters

4.1 The applicability of the Brussels Convention: the concept of "civil and commercial matters" and its interpretation in the case-law of the ECJ

We have analysed so far the jurisdictional rules applicable to accidents and damages occurring in states which are party to one of the two dedicated international nuclear regimes. In the European context, what rules will be applicable for damage occurring in a state which is not a party to either convention? Our hypothetical case considers an accident occurring in a Member State of the European Union (for example the United Kingdom), with consequences in another Member State which is not a party to Paris or Vienna (for example Ireland).

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45. The Joint Protocol, concluded on 21 September 1988, links the Paris and the Vienna Conventions, with the aim of avoiding conflicts of application. It entered into force on 27 April 1992. The Contracting Parties are: Bulgaria, Cameroon, Chile, Croatia, Czech Republic, Denmark, Egypt, Estonia, Finland, Hungary, Italy, Lithuania, Netherlands, Norway, Poland, Romania, Slovak Republic, Slovenia and Sweden. The text of the Joint Protocol can be found in *Nuclear Law Bulletin* No. 42, p. 61 *et seq.* and in SANDS, TARASOFSKY AND WEISS, (Eds.), *op. cit. supra* note 2, p. 1430-1434. For a detailed analysis of the Joint Protocol see O VON BUSEKIST, "A Bridge Between Two Conventions on Civil Liability for Nuclear Damage: The Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention", (1989), *Nuclear Law Bulletin* No. 43, p. 10 *et seq.*

46. Article III.

In such a case an initial question might be: which court will have jurisdiction to receive claims for compensation? With respect to Ireland jurisdiction will be determined by more general common rules on the conflict of laws. Since the United Kingdom and Ireland are parties it is, in principle and subject to the points addressed below, the 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters ("the Brussels Convention") which will govern, since it provides rules to determine the international jurisdiction of the courts of its Contracting States in its field of application.[47] Does the field of application of the Brussels Convention include actions for compensation for transboundary nuclear damage?

An initial objection which may be raised against the application of the Brussels Convention is that the concept of "civil and commercial matters" – to which matters alone the Convention applies – may not include cases involving public authorities or regulated by public law.[48] Without exception states exercise strong regulatory control in the field of nuclear energy, and very often public authorities will themselves run the nuclear installations. In the United Kingdom some nuclear installations are in private ownership, others are publicly owned. The former are subject to stringent regulation, the latter directly run by entities in which the state has a controlling or even exclusive interest.

Can claims relating to a nuclear accident from either types of plant be characterised as a claim in relation to the "civil and commercial matters" to which Article 1 of the Convention directs its exclusive application?[49] The Convention does not define these words.[50] Early commentators tried to identify more precisely the meaning of this concept, *inter alia* focusing their attention on the possibility of applying it in cases involving public law.[51] The European Court of Justice (ECJ), which is the ultimate arbiter of the Convention's interpretation,[52] has dealt with this issue in three cases. In

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47. Preamble of the Brussels Convention.

48. The distinction between private and public law is well known in civil law systems, although there are several differences in the various countries on the precise meaning of the two concepts. For an analysis of this topic see the Schlosser Report cit. *supra* note 3, p. 82 *et seq.*

49. Article 1, paragraph 2 expressly excludes the application of the Convention in matters relating to: "1. the status or legal capacity of natural persons, rights in property arising out of a matrimonial relationship, wills and succession; 2. bankruptcy, proceedings relating to the winding-up of insolvent companies or other legal persons, judicial arrangements, compositions and analogous proceedings; 3. social security; 4. arbitration."

50. According to the Jenard Report the draftsmen of the Convention decided not to give a detailed definition of this notion following the example of other conventions on similar matters. In the Jenard Report, however, it is stressed that the Convention should be interpreted extensively and all matters relating to civil and commercial matters should be included in its field of application, excluding only those expressly indicated by the Convention itself. Jenard Report cit. *supra* note 3, p. 9 *et seq.* The Schlosser Report does not give further helpful indicators for the interpretation of this concept.

51. G. DROZ, *Compétence judiciaire et effets des jugements dans le Marché commun*, (1972); M. WESER, *Convention communautaire sur la compétence judiciaire et l'exécution des décisions*, (1975).

52. The competence of the Court is based on the "Protocol on the interpretation by the Court of Justice of the Convention of 27 September 1968 on jurisdiction and the enforcement of judgements in civil and commercial matters" done on 3 June 1971. The Protocol entered into force on 1 September 1975 for the six founding Member States of the Community and was subsequently modified in 1978, 1982 and 1989 to allow the accession of Denmark, Ireland and the United Kingdom, Greece, Spain and Portugal. The text of the Protocol, as amended by the accession Conventions, is reproduced in *OJEC* C 189 of 28 July 1990, pp. 25-30. For an analysis of this Protocol see MOK, "The interpretation by the European Court of Justice of special Conventions concluded between the Member States", (1971), *C.M.L.R.*, p. 486 *et seq.*; ARNOLD, "Das Protokoll über die Auslegung des EWG-Gerichtsstand-und

LTU v. Eurocontrol[53] the plaintiff was seeking the enforcement in West Germany of a judgement given against Eurocontrol, an international organisation, by the Belgian courts. On a reference from the German court the ECJ stated that: "Although certain judgements given in actions between a public authority and a person governed by private law may fall within the area of application of the Convention, this is not so where the public authority **acts in the exercise of its powers**" (emphasis added). In this case the Brussels Convention did not apply because Eurocontrol was exercising its public powers. In *Netherlands v. Reinhold Rüffer*[54] the dispute concerned a claim for redress brought by the Netherlands against a "water-man", the owner of a German river motor vessel, which collided with a Dutch motor vessel and sank in the Bight of Watum. The state had the wreck removed and sought to recover the costs from the owner of the boat. The ECJ reaffirmed the principle that the Brussels Convention does not apply in actions between a public authority and a private person when a public authority is acting in the exercise of its public powers.[55] The Court ruled that "such a case is an action for the recovery of the costs involved in the removal of a wreck in a public waterway, administered by the State responsible in performance of an international obligation and on the basis of provisions of national law which, in the administration of that waterway, confer on it the status of public authority in regard to private persons". Moreover, in the present case "the agent responsible for policing public waterways does so in the exercise of public authority".[56] In *Sonntag v. Waidmann*[57] the European Court had to decide whether the Convention was applicable to an action for civil damages brought before a criminal court. It expressed no doubt in giving a positive answer, since Article 1 of the Convention clearly affirms that it applies to actions in civil and commercial matters "whatever the nature of the court or tribunal".[58] A second problem to be addressed concerned the possibility of including within the notion of "civil and commercial matters" an action for damages against a school teacher, considered according to his legal system to be a public official. The Court recalled its jurisprudence concerning the need to interpret the Convention "independently" and confirmed the view expressed in its previous case-law: "It follows from the judgements in the *LTU* and *Rüffer* cases, cited above, that such an action falls outside the scope of the Convention only where the author of the damage against whom it is brought must be regarded as a public authority which acted in the exercise of public powers." In this case the publicly appointed teacher was not so acting, and the Convention was deemed to apply.

In light of these cases it might be argued that since a state exercises significant or complete control over the operation of nuclear power plants the Brussels Convention would not apply. In our view this argument is not particularly persuasive. The ECJ has excluded the application of the Brussels

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Vollstreckungsübereinkommens durch den Gerichtshof in Luxemburg", (1972), *NJW*, p. 977 *et seq.*; CATHALA, "L'interprétation des conventions conclues entre États membres de la CEE en matière de droit privé", (1972), *Recueil D.S.*, p. 31 *et seq.*; F. POCAR, "La Convenzione di Bruxelles sulla giurisdizione e l'esecuzione delle sentenze", (1989), p. 33 *et seq.*

53. Case 29/76, 14 October 1976, *LTU v. Eurocontrol*, [1976] *ECR*, p. 1541 *et seq.* On this decision see GEIMER, (1977), *NJW*, p. 489; LINKE, (1977), *RIW*, p. 40; G. DROZ, (1977), *Rev. critique*, p. 772; MARI, "Ambito di applicazione della Convenzione di Bruxelles del 27 settembre 1968 e problemi di qualificazione della nozione di materia civile e commerciale", (1977), *Dir. com. scambi int.*, p. 271 *et seq.*

54. Case 814/79, 16 December 1980, *Netherlands v. Reinhold Rüffer*, [1980] *ECR*, p. 3807 *et seq.* On this decision see SCHLOSSER, (1981), *IPRax*, p. 169; BISCHOFF, (1982), *Clunet*, p. 463.

55. *Idem*, para. 8.

56. *Idem*, paras. 9-16.

57. Case C-172/91, 21 April 1993, *Sonntag v. Waidmann*, [1993] *ECR* I, p. 1963 *et seq.*

58. *Idem*, paras. 15 and 16.

Convention when there is an action between a public authority and a private person, adding that a further condition for the exclusion is that the public authority is acting in the exercise of its public powers. In our hypothetical situation, the operator of the nuclear plant (whether a private company subject to stringent state control or a state-owned company) could hardly qualify as engaging in the exercise of a public power: the production of energy is essentially a commercial matter. As the European Court indicated in the case *Sonntag v. Waidmann*, "a civil servant does not always exercise public powers"; furthermore, in that case the Court underlined that "a teacher in a State school assumes the same functions vis-à-vis his pupils… as those assumed by a teacher in a private school." and decided in favour of the application of the Convention, to avoid a possible unreasonable discrimination between similar situations.[59] In our view the more likely conclusion is that claims relating to nuclear accidents would be governed by the Brussels Convention.

4.2 The relationship between the Paris Convention and the Brussels Convention

Before examining the jurisdictional provisions of the Brussels Convention which are relevant to the hypothetical case, it is appropriate to consider the relationship between the Brussels and Paris Conventions. This matter is addressed by Article 57 of the Brussels Convention, providing that it does not affect the application of other Conventions to which the Contracting Parties may also be parties in particular matters.[60] In the Jenard Report this provision is interpreted as giving precedence to the rules of specific Conventions. Such Conventions containing rules on jurisdiction and enforcement are to be applied regardless of the provisions of the Brussels Convention. This classic solution was adopted in recognition of the fact that specific Conventions are concluded to take account of the particularity of the situations that they regulate and are more appropriate to deal with the questions of jurisdiction that might arise in these contexts. Amongst the Conventions prevailing over the provisions of the Brussels Convention, the Jenard Report expressly refers to the Paris Convention.[61]

Article 57 nevertheless left several problems unanswered, which were the focus of discussion during the negotiations concerning accession to the Brussels Convention by Denmark, Ireland and the United Kingdom in 1978. In particular, questions arose concerning the situation where a specialised Convention dealt only partially with matters also governed by the Brussels Convention.[62] To clarify the meaning of Article 57 a provision on its authentic interpretation was added,[63] although

59. *Idem*, paras. 17-29.

60. Article 57(1) of the Brussels Convention provides: "This Convention shall not affect any conventions to which Contracting States are or will be parties and which, in relation to particular matters, govern jurisdiction or the recognition or enforcement of judgements".

61. Jenard Report cit. *supra* note 3, pp. 59-61.

62. Schlosser Report cit. *supra* note 3, pp. 139-142.

63. Article 57(2) provides: "With a view to its uniform interpretation, paragraph 1 shall be applied in the following manner: a) this Convention shall not prevent a court of a Contracting State which is a party to a convention on a particular matter from assuming jurisdiction in accordance with that Convention, even where the defendant is domiciled in another Contracting State which is not party to that Convention. The court hearing the action shall, in any event, apply Article 20 of this Convention; b) judgements given in a Contracting State by a court in the exercise of jurisdiction provided for in a convention on a particular matter shall be recognised and enforced in the other Contracting State in accordance with this Convention."

doubts about its application persist.[64] The ECJ has addressed the relationship between the Brussels Convention and other international instruments in two cases. In *Netherlands v. Reinhold Rüffer* the Court did not deal with the interpretation of Article 57 because (as noted above) it found that the Brussels Convention was not applicable to the specific case in question.[65] Advocate General Warner did, however, touch briefly upon Article 57, affirming that the application of the Brussels Convention was precluded only when the special Convention governing questions of jurisdiction was intended to be exclusive of the application of any other possible rules on the subject.[66] In *Tatry v. Rataj*[67] the Court was asked by the English Court of Appeal to rule whether the provisions of a special Convention prevailed over the provisions of the Brussels Convention. Advocate General Tesauro recognised that in principle special Conventions prevailed over the Brussels Convention, adding however that this did not mean that the application of all the provisions of the Brussels Convention was excluded: in his opinion, Article 57 had to be read as "a co-ordinating provision, designed to allow the respective provisions to be applied in combination." The Advocate General underlined that in the case of conflict with the rules of the Brussels Convention, precedence had to be given to the jurisdictional rules of special Conventions. But the same Article 57 required the courts of the Contracting States, in any event, to apply Article 20 of the Brussels Convention, in order to guarantee the rights of the defendant.[68] In the opinion of the Advocate General, therefore, "there can be no doubt that the relationship between the various Conventions is to be interpreted, by virtue of this Article [57], as involving the reciprocal incorporation of their respective provisions. As a result, it is entirely legitimate to have recourse to the provisions of the general Convention [*i.e*. the Brussels Convention] in order to fill any lacunae in those of the special Convention."[69] The Court agreed with these views, affirming that:

> "Article 57 […] means that, where a Contracting State is also a contracting party to another Convention on a specific matter containing rules on jurisdiction, that specialised Convention precludes the application of the provisions of the Brussels Convention only in relation to questions governed by the specialised Convention and not in those to which it does not apply."[70]

"Where a convention on a particular matter to which both the state of origin and the state addressed are parties lays down conditions for the recognition or enforcement of judgements those conditions shall apply. In any event, the provisions of this Convention which concern the procedure for recognition and enforcement of judgements may be applied."

64. According to the Schlosser Report it is obvious that the rules of jurisdiction contained in a specific Convention prevail over the rules of the Brussels Convention. But can, for example, the provisions of the Brussels Convention on execution be applied to judgements given according to rules of jurisdiction contained in other specific Conventions? Should a judgement given in accordance with a special Convention also be recognised and executed in accordance with the Brussels Convention in States which are not party to the special Convention? Schlosser Report cit. *supra* note 3, p. 140.

65. *Netherlands v. Reinhold Rüffer* cit. *supra* note 54.

66. *Idem*, pp. 3836-3837.

67. Case C-406/92, 6 December 1994, *Tatry v. Rataj*, [1994] *ECR* I p. 5439 *et seq.*

68. The guarantee of the rights of the defendant is in fact a fundamental requirement of the Brussels Convention for the recognition and enforcement of the judgements given in another contracting State and the need to respect it has been stressed in various occasions by the ECJ.

69. *Tatry v. Rataj* cit. *supra* note 67, pp. 5446-5449.

70. *Idem*, para. 28.

This meant that in the absence of provisions on *lis pendens* in the special Convention, the rules of the Brussels Convention could be applied.[71]

From this brief survey there can be little doubt that, to the extent that the subject matter of a claim is governed by the Paris Convention, its provisions on the exclusive jurisdiction of the courts of the state where the nuclear incident occurred will prevail over those of the Brussels Convention. The courts of the Contracting States might, nevertheless, apply the provisions of Article 20 of the Brussels Convention to ensure respect for the rights of the defendant. Further, in all matters not covered by the Paris Convention – for example claims relating to pure environmental damage – it may be possible to invoke the provisions of the Brussels Convention. Thus, the provisions of the Brussels Convention on *lis pendens* would regulate aspects of the enforcement of judgements not addressed by the Paris Convention.[72]

4.3 The jurisdictional rules applicable in the case of a nuclear accident: the general forum of jurisdiction (Article 2) and the special forum of jurisdiction [Article 5(3)] as interpreted by the ECJ

Assuming that the Brussels Convention was applicable, we turn now to consider the question of which courts would be competent to hear actions for compensation for the damage caused in our hypothetical case (a nuclear accident in the United Kingdom causing damage in Ireland). As noted above, the Brussels Convention establishes rules on the international jurisdiction of the courts of the Contracting States and on the recognition and enforcement of judgements in civil and commercial matters.[73] In general the Brussels Convention establishes jurisdiction based on the defendant's domicile when the defendant is domiciled in a Contracting State, following the traditional rule *actor sequitur forum rei*.[74] The Convention does not define the concept of domicile and refers to the national law of the court seized for the identification of this concept.[75] National law will also determine which internal court will be competent *ratione materiae* and *ratione loci*.

The Brussels Convention provides for other possible fora of jurisdiction: there are provisions for special jurisdiction in certain specified matters, including tort and quasi-tort.[76] In our hypothetical case a person who suffered damage in Ireland could first of all sue in the courts of the state where the person liable for such damage is domiciled[77] (presumably the United Kingdom). The plaintiff could also avail him – or herself of the forum indicated by Article 5(3) of the Brussels Convention. This provides that:

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71. *Idem*, pp. 5462-5482.

72. For example the Paris Convention does not provide which internal court will be competent for the enforcement of the judgements. The application for enforcement therefore will be submitted to the internal court indicated by Article 32 of the Brussels Convention.

73. Preamble. Article 1 also specifies the matters to which the Convention does not apply.

74. Article 4 of the Brussels Convention provides that if the defendant is not domiciled in a Contracting State, the law of each Contracting State is then applicable, with the exception of the rules of exclusive jurisdiction laid down by the Brussels Convention itself.

75. Article 52.

76. Articles 5 and 6.

77. All substantive questions will be decided by the competent court according to the applicable law, determined by the rules on conflict of laws of the same court.

"5. A person domiciled in a Contracting State may, in another Contracting State, be sued:

[…]

(3) in matters relating to tort, delict or quasi-delict, in the courts for the place where the harmful event occurred".[78]

The interpretation of this provision raises two issues: first, the meaning of the concept "tort, delict or quasi-delict", and second, the jurisdictional criterion of the "place where the harmful event occurred" should be defined.

The ECJ has interpreted "tort, delict or quasi-delict" in two cases. In *Kalfelis v. Schröder* the Court, in a dispute regarding future transactions which resulted in a total loss for the plaintiff, was asked to decide whether the concept of "matters relating to tort, delict or quasi-delict" in Article 5(3) was to be interpreted according to the *lex causae* (the law applicable in the individual case) or if it had to be interpreted as having a Community meaning.[79] The Court ruled that the concept "must be regarded as an independent concept covering all actions which seek to establish the liability of a defendant and which are not related to a "contract" within the meaning of Article 5(1)".[80] The Court confirmed its view in *Reichert v. Dresdner Bank*.[81] For present purposes there seems to be little doubt that an action in respect of damage caused by a nuclear accident would fall within Article 5(3), since it seeks to establish the liability of the defendant and that is not based on a contract.

It is then necessary to ascertain which court would have jurisdiction over such claims. Article 5(3) provides for the jurisdiction of "the courts for the place where the harmful event occurred". The drafters of the Brussels Convention did not explain whether these words were to be interpreted as meaning the place where the event giving rise to the damage occurred or, alternatively, the place where the damage occurred, or both. The words were broad enough to accommodate the approach of the Contracting States.[82]

The words have been clarified by the ECJ in the landmark decision in *Handelswerkerij G.J. Bier BV v. Mines de Potasse d'Alsace*.[83] The Court decided that Article 5(3) had to be interpreted in the context of the scheme of the Brussels Convention: the special criteria of jurisdiction derogating from the general forum were introduced "having regard to the existence, in certain clearly defined situations, of a particularly close connecting factor between a dispute and the court which may be called upon to hear it, with a view to the efficacious conduct of the proceedings".[84] The Court recognised that the meaning of the criterion adopted in Article 5(3) was unclear, especially in cases where the act giving rise to damage and the damage itself were situated in different Contracting States,

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78. According to the Jenard Report this rule was adopted to ensure consistency with practice in the law of most of the Contracting States, *op. cit. supra* note 3, p. 26.

79. Case 189/87, 27 September 1988, *Kalfelis v. Schröder*, [1988] *ECR*, p. 5565 *et seq*, at 5566-5569.

80. *Idem*, para. 18.

81. Case C-261/90, 26 March 1992, *Reichert v. Dresdner Bank*, [1992] *ECR* I, p. 2149 *et seq.*

82. Jenard Report cit. *supra* note 3, p. 26.

83. Case 21/76, 30 November 1976, *Handelswerkerij G.J. Bier v. Mines de Potasse d'Alsace*, [1976] *ECR*, p. 1735 *et seq.* On this decision see LINKE, (1977), *RIW*, p. 356; BOUREL, (1977), *Rev. critique*, p. 563; HUET, (1977), *Clunet*, p. 728; DROZ (1977), *D.S.*, p. 613.

84. *Idem*, paras. 8-11.

as in the case of atmospheric or water pollution beyond the border of a State.[85] In the opinion of the Court, the words "place where the harmful event occurred" were open to two possible interpretations, namely the place where the damage occurred or the place where the event causing the damage occurred. According to the Court, both criteria, depending on the case, could be a significant connecting factor from the point of view of jurisdiction and could also be helpful from the point of view of the evidence and of the conduct of the proceedings. In the opinion of the Court, it was therefore reasonable to interpret Article 5(3) as giving the plaintiff the option to start proceedings "either at the place where the damage occurred or the place of the event giving rise to it".[86]

To justify its decision the Court invoked several arguments. First, the provisions of Article 5(3) covered a wide diversity of kinds of liability, making it inappropriate to limit its application to one criterion only. Second, if the only jurisdiction available was in the courts of the place where the event giving rise to the damage occurred, this would have coincided in many cases with the domicile of the defendant, making the provisions of Article 5(3) meaningless; on the other hand, choosing only the place where the damage occurred would have meant excluding a helpful connecting factor with the jurisdiction of courts particularly close to the cause of the damage. Third, the choice of offering an option between the two connecting factors was accepted in several Contracting States. In conclusion:

> "… the result is that the defendant may be sued, at the option of the plaintiff, either in the courts for the place where the damage occurred or in the courts for the place of the event which gives rise to and is at the origin of that damage".[87]

This approach has been confirmed by the Court in a recent decision, *Shevill and Others v. Presse Alliance SA*.[88] However, the Court has modified its approach in relation to "indirect victims". In *Dumez v. Hessische Landesbank*,[89] the Court (disagreeing with the conclusion of the Advocate General)[90] decided that:

> "by virtue of a previous judgement of the Court (*Mines de Potasse d'Alsace*), the expression 'place where the harmful event occurred' contained in Article 5(3) of the Convention may refer to the place where the damage occurred, the latter concept can be understood only as indicating the place where the event giving rise to the damage, and entailing tortious, delictual or quasi-delictual liability, directly produced its harmful effects **upon the person who is the immediate victim of that event**." (emphasis added)

Consequently, "indirect victims" (persons who claimed damage consequent upon the harm suffered by other persons who were direct victims of the harmful act) could not bring proceedings

85. *Idem*, para. 13.

86. *Idem*, paras. 14-19.

87. *Idem*, paras. 20-23 and 25.

88. Case C-68/93, 7 March 1995, *Shevill and Others v. Presse Alliance SA*, [1995] *ECR* I p. 415 *et seq.*

89. Case C-220/88, 11 January 1990, *Dumez v. Hessische Landesbank*, [1990] *ECR* I p. 49 *et seq.* In this case two French companies, Dumez France and Oth Infrastucture, were claiming compensation for the damage suffered by their subsidiaries, because of the cancellation of a loan by German banks.

90. *Idem*, pp. 62-73.

against the perpetrator of that act in the courts of the place in which they themselves sustained the damage.[91]

Notwithstanding this modification, the Article 5(3) case law indicates the following general conclusions in relation to the hypothetical case-study: the criterion of "the place where the harmful event occurred" confers jurisdiction on the courts of the state where the event that gave rise to the damage occurred as well as to the courts where the damage itself occurred, at the option of the plaintiff. This possibility however does not extend to the indirect victim of an harmful event. It follows that a person in Ireland who claims to be the direct victim of damage caused by a nuclear accident in the United Kingdom would have a choice of bringing an action before the English courts (place of the event giving rise to the accident) or the Irish courts (place where the damage occurred).

4.4 The law applicable and the rules on recognition and enforcement

Having established which court will have jurisdiction, it is appropriate to consider briefly the law which would be applicable. In *Shevill and Others v. Presse Alliance SA*, the ECJ confirmed that the object of the Brussels Convention was not to unify the substantive law and procedure of the different Contracting States, but only to determine which court had jurisdiction in disputes relating to civil and commercial matters, and then to facilitate the enforcement of judgements. Questions raised by an action for damages in tort or quasi-tort – such as "the circumstances in which the event giving rise to the harm may be considered harmful to the victim, or the evidence which the plaintiff must adduce" – are to be settled "solely by the national court seised, applying the substantive law determined by its national conflict of laws rules, provided that the effectiveness of the Convention is not thereby impaired."[92]

If the plaintiff in our hypothetical case decides to go to the English courts it is the conflict of laws rules of that country which will determine the question of the applicable law. If the court seized is in Ireland, Irish conflict of laws rules will be applied. This could lead to the application of different rules of substantive law, depending on the court seized, with different legal regimes governing such issues as the precise character of the causes of action (for example does an action lie for pure environmental loss?), evidence, valuation and recovery of damages (for example, can loss of profit be recovered?) and amount of compensation. This could lead to *forum shopping*, with the plaintiff understandably choosing to bring proceedings before the courts most likely to be most favourable to his or her claims.

In this regard, the Brussels Convention establishes a regime for the recognition and enforcement of judgements,[93] with the object of simplifying the relevant procedures in order to facilitate the circulation of judgements given in the Contracting States.[94] If given in accordance with the provisions of the Convention, a decision of the court of a Contracting State in our hypothetical case would be recognised and enforceable in the other Contracting States. In particular, the judgements are automatically recognised in the other Contracting States, unless one of the grounds for

91. *Idem*, paras. 10-22.

92. *Shevill and Others v. Presse Alliance* cit. *supra* note 88, paras. 38-39.

93. Title III. Articles 25-49.

94. Preamble.

the refusal of recognition specified by the Convention itself exists[95] and the merits of the decision cannot be subjected to review.[96] The Brussels Convention specifies certain requirements concerning enforcement and all other matters which are not regulated by it are subject to the provisions of the national law of the State of enforcement.[97]

5. Nuclear damage and jurisdictional issues: *Shortt and Others v. Ireland, the Attorney General and British Nuclear Fuels Plc.*

Some of the issues identified above have been the subject of consideration by the Irish courts in the ongoing case of *Shortt and Others v. Ireland, the Attorney General and British Nuclear Fuels Plc*.[98] The plaintiffs reside on the east coast of Ireland. They claim to be adversely affected by operations of British Nuclear Fuels (BNFL) at Sellafield (including operations relating to the THORP project). They claim that gaseous and liquid discharges from BNFL have caused damage to health and the environment in their area. They also claim that those activities and the increased radioactive contamination could lead to an estimated two thousands deaths in the next 10 years. They have brought proceedings in the Irish courts seeking *inter alia*: a declaration that BNFL has contravened European Directives (Council Directive 85/337/EEC and Council Directive 80/836/Euratom) and international law; injunctions restraining the defendant from continuing its project until compliance with European Directives had been assured; damages; and compensation.

An initial issue was the question of whether the Irish courts were competent to entertain the claim, given that the activities alleged occurred in the United Kingdom. The plaintiffs had brought their application not under the jurisdictional rules of the 1968 Brussels Convention but rather under jurisdictional rules under Irish law: Order 11 of the Rules of the Supreme Court, permitting service out of the jurisdiction on a person who is not a citizen of Ireland where:

> "(f) the action is founded on a tort committed within the jurisdiction; or
>
> (g) any injunction is sought as to anything to be done within the jurisdiction, or any nuisance within the jurisdiction is sought to be prevented or removed, whether damages are or are not also sought in respect thereof [...]".

BNFL challenged the approach, arguing that the plaintiffs' claim should have been brought under the 1968 Brussels Convention. This argument was dismissed by the High Court, O'Hanlon J. ruling that BNFL was a proper party to the plaintiffs' action. The High Court referred to the jurisprudence of the ECJ to conclude that the tort in question was committed within its jurisdiction (a condition for the application of Order 11). O'Hanlon J. observed that although the activities of BNFL were carried on outside the jurisdiction of Ireland they had harmful consequences within Ireland, on the atmosphere and seacoast along the east coast. Referring to the *Handelswerkerij v. Mines de Potasse d'Alsace* judgement, he concluded that "there is ample authority for the proposition that a tort

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95. Article 26 provides for the possibility of opposing recognition. Amongst the grounds for refusal of recognition, Articles 27 and 28 include conflict with public order, lack of respect of the defendant's rights, irreconcilability with other judgements, etc.

96. Article 29.

97. Articles 33-49. For a detailed analysis of the provisions of the Brussels Convention on the recognition and enforcement of judgements see the authors cit. *supra* note 3.

98. *Constance Shortt and Others v. Ireland, the Attorney General and British Nuclear Fuels Plc.*, [1996] Irish Reports, pp. 188-220.

may be regarded as having been committed within the jurisdiction if any significant element occurs within the jurisdiction". He went on to analyse the case law of the ECJ to affirm that "as to the meaning to be attributed to the expression tort when referred to in the Convention, this was the subject of a decision by the European Court in *Kalfelis v. Schröder*, where a definition equally wide in scope to that applicable in Irish law (a wrong independent of contract) was adopted". Finally the High Court dealt with the question of the *forum conveniens*. O'Hanlon J. observed that:

> "as between trying the case in this jurisdiction or in the law courts of England, it does not appear to me that there is much to choose between the two options on the grounds of comparative costs and convenience. Some additional costs and inconvenience will be incurred by the third defendant (BNFL). From the point of view of the other parties to the suit, the High Court in Dublin would appear to be more convenient and less costly than having to travel to England, but the scales do not appear to me to come down firmly one side or another."

The High Court concluded that it was preferable that the proceedings be litigated in Ireland rather than England, having regard to the comparative cost and convenience of litigating in either jurisdiction.

BNFL appealed to the Irish Supreme Court, which dismissed the appeals. It affirmed that the case for service out of the jurisdiction under Order 11 had been made out by the High Court. It was not necessary to discuss at length the applicability of the 1968 Brussels Convention, since the plaintiffs had chosen to apply for leave under Order 11 in accordance with the traditional procedure applying to service out of the jurisdiction. However, the Supreme Court observed in passing:

> "It is possible to invoke the [1968 Brussels] Convention to institute proceedings in the national jurisdiction where the effect of the alleged wrongful act is felt. Secondly it would not appear to be possible to invoke the Convention in an administrative law action. It may be possible to invoke the Convention where the action is essentially based on some civil wrong but also contains some minor elements of administrative law."

In an interesting *obiter dictum*, the Supreme Court further held that in the instant case the invocation of Irish jurisdiction did not amount to an interference with the legislative and judicial powers of another sovereign state (the United Kingdom), since the subject matter of the litigation related to the consequences in Ireland of activities carried on in the United Kingdom rather than to the activities themselves. These decisions of the High Court and Supreme Court provide judicial authority for the approach set out in our analysis above.

6. Conclusion

It is apparent that there may be advantages and disadvantages in acting under the two sets of conventions. The advantage of the dedicated regime provided by the Paris and Vienna Conventions is that it concentrates jurisdiction over claims for an accident in a single country (and perhaps even a single court), avoiding the risk of conflicting judgements being awarded on the same issue. Furthermore, claimants under the Paris and Vienna Conventions will not have the burden of proving fault, a task which may (but not necessarily) arise under the Brussels Convention. Against this, the advantages of the Brussels Convention fall to be weighed. From the perspective of persons damaged by a nuclear accident they will have the option of choosing where to institute an action, either before their own courts or the courts of the state where the event occurred. This means that they may at least choose not to file actions abroad, with all the attendant difficulties that may bring in terms of

language, cost and geographic distance. Moreover, they will not be subject to the low limits on liability established by the Vienna and Paris Conventions, or their progeny. And they will not be subject to the narrow definitions of nuclear damage which (in the case of England at least) would exclude most environmental claims (and even claims where harm other than physical damage had occurred).[99]

The Paris and Vienna Conventions were essentially developed to nurture nascent nuclear industries. Even as amended they can scarcely be said to accommodate the interests of victims. It is surely no coincidence that it is principally nuclear-power states which have acceded to these instruments. For countries like Ireland – as well as Luxembourg and Austria – it would be difficult indeed to identify many, if any, reasons why they should accede to these conventions when the Brussels Convention appears to provide adequate or superior protection.

99. See *Merlins and Others v. BNFL*, [1990] All England Law Report 3.

Disposal of Radioactive Waste: The Question of the Involvement of the Public under International Law

by Pierre Strohl*

Introduction

The public's request to be informed, consulted and finally to participate in the decision-making process is one of the most significant features of modern times. Although this demand can only really be satisfied in democratic countries where appropriate procedures exist, it has been extended to even more numerous and varied fields, whether at local, national or international level: the principle is gaining ground.

It would not be justified to regard this as simply a political reaction ensuing from a lack of confidence in representative democracy. The phenomenon is, in reality, a product of the "information and communication era": the member of the public is informed, practically immediately, of all that takes place, well beyond national boundaries. He is therefore inclined to react instantly, and the media and opinion polls encourage him to voice his opinion. When an event or decision concerns him, and even more so when he finds himself threatened, the desire to be "involved", directly or through community action, aside from the traditional legal rights to public representation which he may exercise periodically through elections, becomes natural.

We are aware to what degree the development of nuclear programmes in OECD countries is influenced by this new request by the public to play an active role: the debates which have arisen from plans concerning the permanent disposal of radioactive waste provide a perfect example of this influence. It is therefore worthwhile to examine in this context how, and to what extent, international law has been receptive to the social phenomenon that we have just described, following which we can draw certain conclusions, albeit of a necessarily provisional nature.

The evolution of mentalities and of the law

An international analysis of the provisions on the right to information and the consultation and participation of the public in the decision-making process relating to the management of radioactive waste raises sensitive questions since provisions of this nature are firmly rooted in the state order, especially when they concern nuclear energy. Indeed, international law in general bases itself on the political and economical sovereignty of states. To illustrate this situation we can, for example, refer to one of the basic texts which is the Charter of Economic Rights and Duties of States (Resolution of the General Assembly of the United Nations of 12 December 1974) which declares that:

> "Every State has and shall freely exercise full permanent sovereignty, including possession, use and disposal, over all its wealth, natural resources and economic activities." [Article 2(1)];

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> "The protection, preservation and enhancement of the environment for the present and future generations is the responsibility of all States. All States shall endeavour to establish their own environmental and developmental policies in conformity with such responsibility. [...] All States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." (Article 30).

Nevertheless, since the beginning of the 1970's, the environmental movement has imposed the idea that man himself is at the centre of environmental concerns and has a role to play independently of the powers reserved to states. A new philosophy in international environmental law has gradually been evolving in this sense by helping to introduce a subject other than the State, namely "the citizen" who is no longer simply a passive subject whose right to enjoy an environment of sufficient quality must be protected, but rather is an "active subject" involved in the conservation and improvement of his environment, who has the right to participate in decisions on this topic and therefore to have complete access to the relevant information. The international legal instruments which reflect this philosophy are not legally binding on states but do provide a doctrinal basis from which the law is inspired. In this manner, the international substantive law, whether already in force or in the process of being formed, has followed this development through organisations of intergovernmental co-operation in the context of regional conventions.

The nuclear industry, subject from the outset to a special legal regime which remained independent to a certain extent from environmental law (which only came into existence at a later stage), now tends to be governed, through these conventions, by the same provisions concerning the rights of the public as those which apply in relation to other activities representing a risk for the environment. It should be pointed out, however, that the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management of 5 September 1997 (hereinafter referred to as "the Joint Convention") which has a universal vocation, continues to adopt in this respect a much more restrictive attitude.

We will see that European community environmental law has followed its own course concerning the rights of the public.

Finally, the existence of transboundary risks leads to the adoption of other regional conventions which, without directly creating international standards governing the rights of the public, require countries from which such a risk originates to grant the same rights of information and participation to the public in countries which could be exposed to this danger as those which are enjoyed by their own citizens.

The philosophy of international environmental law

The Declaration of the Conference of the United Nations on the Environment adopted on 16 June 1972 in Stockholm (hereinafter referred to as "the 1972 Declaration"), while recalling the rights and obligations of sovereign states (Principle 21), asserts the rights and responsibilities of man in the field of the protection of the environment. However, the request made of governments, as far as the subject we are interested in is concerned, limits itself to "education in environmental matters" in order to explain to citizens how they should exercise their responsibilities in protecting and improving his environment (Principle 19). In the same vein, The Final Act of the Helsinki Conference of 1975 on Security and Co-operation in Europe, confirms this responsibility of society.

However, the specific obligation to inform the public on, or to involve them in activities concerning the environment, seems to appear for the first time in The Declaration of the OECD of Anticipatory Environmental Policies, adopted at ministerial level on 8 May 1979, in which governments agree to "encourage public participation, where possible, in the preparation of decisions with significant environmental consequences, inter alia, by providing, as appropriate, information on the risks, costs and benefits associated with the decisions". Using this idea, and limiting such participation to the public exposed, the Council of the OECD recommends to governments to "introduce, where appropriate, practical measures for informing the public and for participation by those who may be directly and indirectly affected, at suitable stages in the process of arriving at decisions on projects" which have a significant impact on the environment; it has entrusted the Committee for the environment to report on actions undertaken (Recommendation on Assessment of Projects with Significant Impact on the Environment, of 8 May 1979, Paragraph I-5).

In a wider context, the World Charter for Nature (Resolution of the General Assembly of the United Nations of 28 October 1988) declares that "all persons, in accordance with their national legislation, shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment" (Paragraph 23), which implies the right to obtain the information necessary for this participation.

A few years later, with a more specific object, the Decision–Recommendation of the Council of the OECD of 8 July 1998 related to accidents involving hazardous substances makes a clear distinction between the *decision* to make it compulsory for governments to communicate information on the type of risk and the safety measures to be taken, and the *recommendation* to "take action to facilitate, as appropriate, opportunities for the public to comment prior to decisions being made by public authorities concerning siting and licensing of hazardous installations". Typically, however, nuclear installations are excluded from the scope of this text.

Finally, the developments which we have just described are to be found in the most general form on a universal level in the Declaration of the Rio Conference on Environment and Development of 13 June 1992, of which Principle 10 states that the best protection of the environment is ensured by public participation. As a result: "at the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in the decision-making process. States shall facilitate and encourage public awareness and participation by making information widely available".

The impact of this philosophy

The political intentions expressed by governments are therefore very clear, if not extending to details of implementation, at least with respect to fixed objectives; with the exception of our example mentioned, they all apply to nuclear energy and in particular to the management of radioactive waste. These declarations, recommendations and resolutions, which are not legally binding but which do to a certain extent set an example, are often referred to as "soft law" or considered to be creating customary law. We think this to be unfounded. It is also not possible to consider them as "general principles of international law" of which the definition and the scope, if not the very existence, are controversial. In any event, the latter concern the international order and imply the acceptance of their legally-binding character between states, criteria which can often not be applied to the rights and the role of the public in national environmental law, even though their integration in this

context is seen as being widely accepted.[1] In fact, the provisions to which we have referred take their legal basis from the results of international co-operation through which states confirm in an informal manner (even if such confirmation may appear formal) certain principles or rules which they deem appropriate. However, each state reserves its right to apply these principles to the extent possible according to the desired mode of implementation and timing, while also taking into account the attitude taken by others in relation to such measures. Given the permanent and institutionalised character of this co-operation, it is to be expected that the measures taken will be reported.

International environmental substantive law[2]

The difference between the declared intentions and the content of international substantive law remains clearly significant. It should be noted that we will not examine treaties and conventions which provide for exchanges of information and consultation between states, without creating rights for citizens or associations. Thus, it will become evident that texts of international substantive law which create direct rights for the public are few and far between.

The Convention on Long Range Transboundary Air Pollution adopted on 13 November 1979 in Geneva (and which came into effect on 16 March 1983 between more than 40 states and the EEC within the framework of the Economic Commission for Europe of the United Nations), essentially creates obligations for states to protect the environment and to facilitate exchanges of information. The public is only concerned by the states' commitment to develop education and training programmes concerning the pollution of the environment (similar to Principle 9 of the 1972 Declaration).

Over a decade passed before a regional convention was to define, in general but clear terms, the rights and guarantees of private persons. This instrument was the North American Agreement on Environmental Co-operation of 14 September 1993 (which came into force on 1 January 1994 between the three states party to the North American Free Trade Agreement) which aims *inter alia* to "promote transparency and public participation in the development of environmental laws, regulations and policies" [Article 1(h)]. The Contracting States shall "ensure that persons with a legally recognised interest under its law [...] have appropriate access to administrative, quasi-judicial or judicial proceedings for the enforcement of [...] environmental laws and regulations to support or defend their respective provisions to present information or evidence;" such proceedings shall be "open to the public, except where the administration of justice otherwise requires". A right of appeal of the parties to the proceedings aiming to "seek review and correction of final decisions" is foreseen in accordance with national law. These procedures must be fair and equitable and not lead to unjustified delays (Articles 6 and 7). A commission for co-operation is responsible for making recommendations regarding "public access to information concerning the environment [...] including information on hazardous materials and activities [...] and opportunity to participate in decision-making processes related to such public access" (Article 10).

It is interesting to note that the Convention of the Council of Europe on Civil Liability for Damage resulting from Activities Dangerous to the Environment, adopted on 21 June 1993 in Lugano, includes a Chapter III on access to information, which also establishes the role of associations for the

1. We may, however, consider that the right to information has become, in its widest sense, an integral part of human rights recognised as part of the general principles of international law.

2. The current situation brings us to refer to conventions being signed or ratified which are not yet in force. On the other hand, we will not include texts which have no bearing on the final disposal of radioactive waste.

protection of the environment (requests for the banning of dangerous and illegal activities, injunctions against operators concerning preventive measures), subject to the provisions of national law. However, this convention has not yet entered into force and it excludes nuclear installations[3] from its scope.

A new stage has just been reached by the adoption of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters on 25 June 1998 in Aarhus (Denmark) (hereinafter referred to as "the Aarhus Convention") within the framework of the Economic Commission for Europe of the United Nations (not yet in force). It is the first convention to describe in explicit and exhaustive terms the role of the public and to establish rather formal procedures to allow the public to exercise the wide-ranging rights which it has been granted in "a clear, transparent and consistent framework" [Article 3(1)]. Within the limits of the scope of application of the Convention, (*i.e.* between the Contracting States), no discrimination based on nationality or place of residence is allowed regarding the rights of the public [Article 3(9)], and associations (or other non-governmental organisations) for the protection of the environment must be recognised and receive the necessary support [Article 3(4)]. We can only summarise here the long and dense text of this instrument.

The right of access to any information concerning the environment is open to all physical or moral persons who make such a request, without an interest having to be stated; any refusal to communicate the requested information must state the grounds for refusal (manifestly unreasonable requests or relating to documents in a preliminary form, general confidentiality clauses on national defence or public security, commercial and industrial information, intellectual property etc.) which should be interpreted in a restrictive manner; the time limits and manner in which positive or negative replies are to be communicated by the public authority are defined (Article 4).

In addition, the public authorities are obliged to collect, publish, make available and disseminate information on a regular basis, according to procedures set out in detail, and, of course, to notify all members of the public who may be affected by imminent threats to the environment (Article 5).

The participation of the public in the decision-making process on projects for particular activities is organised under Article 6 of the Convention. The impressive list of activities concerned, across very different sectors, is set out in Annex I and covers almost all nuclear installations, including those for processing, temporary storage or final disposal of irradiated fuel and radioactive waste. This list can be complemented by national law for other activities which may have a significant effect on the environment. When the decision-making process has commenced, members of the "public concerned", *i.e.* the public likely to be affected by, or having an interest in, the decision-making, as well as associations for the protection of the environment which are automatically deemed to have an interest in the matter [Article 2(5)], enjoy the advantages of a procedure which ensures that:

- from the very beginning of the process, they will receive all information concerning the decision to be taken, the envisaged procedure and the possibility of participation;

- they will have access to all information relevant to the decision-making (description of the site; the nature, technical characteristics, effects on the environment, waste, safety, etc. of the proposed activity);

3. The reason for this exclusion is that this instrument is a convention on liability whereas an international regime specifically governing nuclear third party liability already exists.

- they may effectively participate in discussions for the duration of the decision-making process, from the outset of the procedure "when all options are open";

- "an effective public participation can take place" by submitting "in writing or, as appropriate, at a public hearing or inquiry […] any comments, information, analyses or opinions that it considers relevant […]";

- "in the decision due account is taken of the outcome of public participation"; when the decision has been taken by the competent authority, the text must be made accessible to the public "along with the reasons and considerations" on which the decision is based.

The participation of the public in the preparation of plans and programmes for the environment should take place "within a transparent and fair framework" and the Contracting Parties must also endeavour to provide such opportunities when drawing up environmental policies (Article 7).

The active involvement of the public during the preparation of regulations and other binding rules having significant consequences on the environment must also be ensured and their remarks must be taken into account as far as possible (Article 8).

Finally, review procedures before a court of law or "another independent and impartial body established by law" in cases where a request for information pursuant to Article 4 has been rejected, must be provided for, without prejudice to an expeditious administrative procedure that is free of charge or inexpensive (where a review is before the court). The final decision shall be binding on the public authority [Article 9(1)]. The same type of appeal is provided for members of the public concerned having a sufficient interest or maintaining impairment of a right, in order to challenge the substantive and procedural legality of any decision, act or omission subject to the provisions of Article 6 (participation in the decision-making process). The interest of environmental associations is deemed to be sufficient [Article 9(2)]. These appeals must be fair, equitable and timely, and decisions taken must be made available to the public [Article 9(4)]. Finally, the public is informed on the possibility of introducing review procedures, and shall be provided with the necessary assistance mechanisms to do so [Article 9(5)].

This summary does not reflect the level of detail of these provisions but it gives a strong indication of its extremely procedural character and its objective to comprehensively regulate public rights in the Contracting States. The Parties to the negotiations officially recognise with satisfaction the contribution of environmentalist non-governmental organisations.

The management of radioactive waste

The instruments described in the previous section concern the obligations incumbent on their respective Contracting Parties on the protection of the environment in general. Even when they do not exclude nuclear energy, we should ask ourselves to what extent they will be relevant to the management of radioactive waste, after the entry into force of the 1997 Convention which is specifically dedicated to this subject and whose contents are much more restrictive with respect to the rights of the public. This instrument is the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, adopted on 5 September 1997 in Vienna under the aegis of the IAEA. Although governments recognise, in the Preamble, the importance of informing the public on questions relating to the subject of the Convention, the text limits itself to providing that, with respect to the siting of proposed facilities for the management of spent fuel or radioactive waste,

each Contracting Party shall "take the appropriate steps to ensure that procedures are established and […]: iii) to make information on the safety of such a facility available to members of the public" (Articles 6 and 13).

No further details are provided. Proposals for final disposal are treated in the same manner as those for other installations for the management of radioactive waste and irradiated fuel. The modesty of the authors' objectives in this respect is significant, raising the question as to whether the obligation to take relevant measures to give "information" on safety fully satisfies the right of the public to have access to all relevant information. This is compounded by the absence of any reference in the 1997 Joint Convention to public participation. It is, however, an improvement compared with the Convention on Nuclear Safety which was adopted in Vienna on 17 June 1994 and was used as a role model: the latter does not even contain provisions on information of the public.

It is true that the overriding objective of the 1994 Convention was to encourage Eastern European countries to adopt the Western safety model as a basis for their nuclear power plants. Although the management of radioactive waste is no more dangerous than the operation of nuclear power plants, public awareness of the problems caused by this type of waste and, in particular, their long-term effects, is the only rational explanation for this evolution of treaty law.

It should also be recalled that the 1997 Joint Convention provides that each Contracting Party must consult other Contracting Parties in the vicinity of a facility which is likely to affect them and to "provide them, upon their request, with general data relating to the facility to enable them to evaluate the likely safety impact of the facility upon their territory" (Articles 6 and 13). We are still a long way from public consultation and even from the opportunity for a government to express its opinion on a transboundary risk, since no reference is made to such an option and therefore there is no obligation in this respect.

Transboundary risk

International law also deals with the information and participation of the public in another form, in a secondary rather than a direct manner, in the recommendations and bilateral and multilateral agreements on transboundary pollution. In this case, the standards governing the rights and the active role of the public are established under national law, but the benefits of such procedures in force in a given country are extended to the citizens of neighbouring countries which may be exposed to a transboundary risk.

This mechanism is included, for example, in several recommendations of the Council of the OECD[4] which have defined its principles in successive phases: equal access for persons from other countries (especially neighbouring States) to rights governing information and participation, and to the consultation procedures of the country hosting a new project or activity which could represent a major risk of transboundary pollution. The approach followed by these recommendations aims to harmonise policies and emphasises the importance of co-operation between national and local authorities of the countries concerned. It is necessary in this context for the right of access to be specified and defined by the legislation of the country of origin. The conclusion or the strengthening of bilateral or multilateral agreements is, nevertheless, encouraged. In the same vein, the Convention of Espoo of 25 February 1991 on Environmental Impact Assessment in a Transboundary Context, drawn up under

4. Recommendations of 14 November 1974, 11 May 1976 and 17 May 1977, completed for the "Frontier Regions" by the Recommendation of 21 September 1978.

the aegis of the Economic Commission for Europe of the United Nations and which entered into force on 10 September 1997 between approximately twenty countries (hereinafter referred to as "the Espoo Convention"), introduces the rights of the public in this field into substantive international law. It states that "the Contracting Party of origin shall provide, in accordance with the provisions of this Convention, an opportunity to the public in the areas likely to be affected to participate in relevant environmental impact assessment procedures regarding proposed activities and shall ensure that the opportunity provided to the public of the affected Party is equivalent to that provided to the public of the Party of origin" [Article 2(6)] and, as a result, the Contracting Parties "shall ensure that the public of the affected Party in the areas likely to be affected be informed of, and be provided with possibilities for making comments or objections on, the proposed activity, and for the transmittal of these comments and objections to the competent authority of the Party of origin [...]" [Article 3(8)]. Once again, it is the national law of a country which evaluates the impact on the environment which applies in particular for the protection of "information the supply of which would be prejudicial to industrial and commercial secrecy or national security" [Article 2(8)].

Appendix I, which lists the activities covered by the Espoo Convention, refers expressly to nuclear plants and other nuclear installations, including those for storage, disposal and processing of radioactive waste. The Espoo Convention also provides that the Contracting Parties may enter into bilateral and multilateral agreements with a view to adopting more stringent provisions in this field.

Also under the aegis of the Economic Commission for Europe of the United Nations, the Convention of Helsinki on the Transboundary Effects of Industrial Accidents of 17 March 1992, which has not yet entered into force, recalls, on the one hand, the 1988 OECD text on accidents due to dangerous substances by its object and its confirmation of the right of the exposed public to receive the relevant information and, on the other hand, that of Espoo through "an opportunity to participate in relevant procedures with the aim of making known its views and concerns on prevention and preparedness measures" which is "equivalent" to that given to the public of the country of origin of the risk. This Convention excludes, however, nuclear accidents and radiological emergency situations.

This leads us to comment that the weak point of texts such as those of the OECD and the Economic Commission for Europe of the United Nations is to subordinate the rights of access of the public exposed to transboundary effects to the limits and modifications to the legislation and procedures of the country that guarantees these rights. In any event, this country will not fail to take into account, especially in the nuclear field, the possible consequences of granting such access by persons and associations of third countries to information and decision-making procedures, when deciding on the provisions which should be established for its own citizens.

Bilateral or multilateral agreements between a small number of countries can, in fact, define more specific procedures concerning the information and consultation of the public, to which these countries commit themselves, and ensure the complementary nature of such procedures with obligations under an international convention.

However, the agreements of this type in the nuclear field present for the most part an informal character, and do not contain provisions on the information and participation of the public. They generally consist of agreements in simplified form or administrative arrangements (exchange of letters or notes, memoranda of understanding) concerning the transmission of information and consultation between authorities with a view to improving site assessment and safety, mostly in relation to installations situated 20 or 30 km from the border, as well as the organisation of the notification of radiological emergencies and mutual assistance. The Directives of 15 October 1976 on Nordic Co-operation (Denmark, Finland, Norway and Sweden), the agreements between France and Belgium (1966) as well as with Luxembourg (1962 amended in 1983 and 1988), those concluded by

Germany with Denmark (1977), the Netherlands (1977) and Switzerland (1982), the agreement between France, Germany, and Switzerland relating to a tripartite commission for neighbourhood problems in border areas (1975), etc., do not cover public participation.

Community law and the European Union

The binding nature of Community law is offset by the greater caution which is exercised in relation to the rights of the public, more specifically when they touch on nuclear energy matters. However, several directives of the Council have gradually extended the right to information.

The Directive on the Major-accident Hazards of Certain Industrial Activities (Seveso Directive of 24 June 1982) is principally aimed at harmonising the regulations governing chemical installations using dangerous substances, but it also requires each Member State to inform "persons liable to be affected by a major accident" on the safety measures which should be applied in the event of an accident and to make such information available at the same time to the other Member States (Article 8). The amendment of 24 November 1988 to this Directive specifies that this information should be provided without a request having to be made, and it should be kept up to date and made publicly available. These provisions constitute a first step, but they do not cover the nuclear industry and in any event do not touch upon decisions concerning the construction of installations, which is the subject of our paper.[5] It is noteworthy that the Seveso II Directive of 9 December 1996, although excluding dangers linked to ionising radiation, could be interpreted as being applicable to the other effects of a nuclear accident.

The right of the public to information has developed in two successive phases under Community law:

- in the Directive of 27 June 1985, the requirement to provide information extends to "the Assessment of the Effects of certain Public and Private Projects on the Environment", in other words, to preliminary information including projects for certain nuclear installations. The manner in which such information should be made available to the public is determined by each Member State [Article 6(3)].

- "the Freedom of Access to Information on the Environment" is established in the Directive of that name adopted on 7 June 1990 in favour of all physical and moral persons within the Community concerning the state and the protection of the environment and on activities related to it, thus clearly covering the effects of nuclear energy. It is not necessary to prove an interest in order to obtain such information; however all requests are subject to the confidentiality provisions listed. A refusal to communicate the information requested must provide the reasons for such refusal and is subject to review (Articles 3 to 5).

On the other hand, the right of the public to participate in decision-making procedures is limited at present under Community law. The Directive of 1985 mentioned above, is the only one to oblige states to ensure that "the public concerned is given the opportunity to express an opinion" during the licensing procedure according to the arrangements provided, for example, by written submissions or a public inquiry [Article 6(2) and 6(3)]. The amendments introduced by the new Directive of 3 March 1997 are not much more far-reaching. The list of nuclear installations to which it

5. The Directive of 27 November 1989 on the information of the population in the event of a radiological emergency does not cover the rights of the public when a project is being authorised.

applies has been extended and now expressly mentions the temporary storage and the final disposal of spent fuel and radioactive waste as well as drilling for the storage of this waste. The public must receive information on possible projects at a sufficiently early stage in the procedure so there is "a reasonable time [...] to express an opinion before the development consent is granted". The manner in which such consultation should be carried out is determined by the states (Article 6 amended). The scope and the criteria for implementation have been extended and strengthened in comparison with the 1985 Directive, thereby placing further constraints on states. These provisions can be interpreted in an extensive manner as far as the participation of the public is concerned, but leave a large margin of discretion to governments in relation to the procedures to be used, which is probably a wise attitude.

The Treaty of Maastricht which complements the Treaty of Rome in the environmental field, does not add any provisions on the rights of the public in this respect (Article 130 R to T).

The integration of international law into domestic law

1. What conclusions can be derived from an analysis of international law?

In terms of doctrine and commitments made by governments, international law has contributed to the emergence of an "environmental conscience" to which public opinion is in general favourable and which has led individuals and their associations, especially in industrialised countries, to become more directly involved in policies and projects which concern them, beyond the means which are offered to them through "representative democracy". This approach is all the more attractive when those who adopt it are not themselves involved in or beneficiaries of the polluting activities (cars, intensive agriculture and fishing, domestic rural or urban waste, concrete expansion of tourist sites, etc.).

In terms of international substantive law, the situation is complex, fragmented and constantly in evolution. The legal problem of conflicting conventions – primacy of the universal or specialised or subsequent treaties over regional or general or previous treaties – does not seem to arise in practice, even in the case of states which are party to two or more regional conventions of which certain provisions are contradictory, since the subject dealt with relates to domestic law rather than relations between states.

In our specific field, once it has entered into force, there will be the 1997 Joint Convention, which is of universal scope but whose Preamble is so modest that it seems to avoid any possibility of conflict:

> "(ix) affirming the importance of international co-operation […] through bilateral and multilateral mechanisms, and through this incentive Convention; [...]"
>
> (xiii) keeping in mind the Convention on Nuclear Safety [...] and other relevant international instruments".

The perspective of the emergence of a universal convention dealing specifically with rights of participation of the public in relation to the management of radioactive waste, seems unlikely for reasons we will identify later.

Finally, those conventions or agreements which focus on transboundary risk and aim to ensure equal rights of access to national procedures, tend to be of a mainly regional nature, even when they extend to relatively vast regions, because they imply a certain political proximity.

2. Comparison of current examples of legal instruments in terms of their potential integration into the domestic legal regime

Conventions which simply provide for the right of nationals from foreign countries to benefit from information and consultation procedures in order to take account of the cross-border risk, only affect national law to the extent that provision is made to effectively accommodate the rights of these nationals in a just and non-discriminatory manner (example Espoo Convention). Their implementation for the benefit of anti-nuclear activists can, however, raise political problems in certain neighbouring countries.

International legal instruments which define the rights of the public in rather general and flexible terms, leaving a margin of discretion sufficient to take account of national legislative and regulatory procedures, will be easier to implement, even for the nuclear industry (examples 1997 Joint Convention, OECD Recommendations, European Union Directives, Agreement NAFTA of 1993).

On the other hand, prospective conventions of a more ambitious nature which define exhaustively the rights of the public in a detailed and comprehensive manner, and set out details concerning the implementation (conditions of exercise, powers and obligations of the legal, administrative and judicial authorities, time limits, the form of acts etc.) of the information, participation and review procedures (example 1998 Aarhus Convention), are likely to lead to serious conflicts or duplication with national law, especially in the sensitive field of nuclear energy. They do not seem to us to have a great future except perhaps in the countries where the environmental movement which inspired them exerts a strong influence.

3. This analysis of the integration into domestic law would be incomplete without examining real situations

It must be recognised that the right and capacity of the public to intervene in the decision-making process is first and foremost a matter for the national authorities, and the conditions governing such participation of the public largely depends on the institutional system, political practices and sociological and cultural climate etc., of each country. Experience shows that even in the liberal states of the OECD, the modes of involvement of the public in nuclear projects are very varied, ranging from active information methods to original forms of “participation democracy”. It is clear that in other geopolitical areas, the types of relations which exist between the authorities and the population are even more mixed. We can cite for example developing countries where Western models are not suitable for obvious reasons, and countries which do not have the benefit of democratic institutions. It is, of course, an area where national situations and social surroundings remain the deciding factors.

It is true that the current political tendency has been to encourage numerous laws which have entered into force or are being drafted, to provide for extensive information and participation of the public, irrespective of any international convention. Nuclear energy also involves a wide range of involvement of the citizen (referenda, public and contradictory inquiries and hearings, commissions comprising elected representatives and associations etc.). Despite the prejudices of their opponents,

the nuclear establishment, accused of having maintained a policy of secrecy, is now increasingly supportive of the transparency of information and consultation.[6]

The importance of the role of the public

Irrespective of the opinion we may hold on the information and the participation of the public, it is realistic to try to appreciate its results.

The freedom of expression of an informed opinion, as well as the modern types of direct and reasonable involvement of citizens in the implementation of technologies involving risk, such as the use of nuclear energy, is certainly a factor which may promote a high degree of safety. The comparison between the quality of nuclear safety in the OECD area and the deficiencies in this respect in the countries of the former Soviet Union, are an example of this.

On the other hand, it has been shown that "emotional" public reactions and systematically biased activists can delay, increase the financial costs and finally put a stop to nuclear and other programmes and projects which are in the interest of the general public, including from a point of view of environmental protection. Apart from national or international legal norms and procedures, the transparency of the information policy and constructive participation procedures imply mutual trust and honest dialogue between, on the one hand, qualified authorities and experts, and on the other, the members of the public.

This is especially important for the management of radioactive waste, the solutions for which are vital for the future of nuclear programmes. Finally, it should be noted that the decisions relating to the final disposal of radioactive waste raise not only scientific and technical problems, but also questions of an ethical nature concerning the responsibility we bear for future generations. From a legal point of view, this ambiguous form of "responsibility" can, in fact, only be translated as a legal obligation to act at the present time so as not to impose on future generations risks and burdens which the present generations do not find socially acceptable. Any discussion on the choice between reversible or irreversible solutions for example must take this one legal obligation as its starting point.

This "ethical innovation" is most strongly affirmed in international studies of those responsible for the management of high-level and long-lived radioactive waste.[7] It is the responsibility of legal experts – because law is a branch of ethics – just as much as that of scientists, engineers and politicians, to identify appropriate measures and appropriate mechanisms of institutional control in order to responds to new needs in the distant future, before the public will be able to play a useful role in the decisions to be taken.

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6. See *Public Participation in Nuclear Decision-Making* (NEA/OECD 1993), and *Information Policies of Nuclear Regulatory Organisations* (OECD/NEA 1994).

7. See for example *Long-term Management of Radioactive Waste – Legal, Administrative and Financial Aspects* (NEA/OECD 1984), Pierre Strohl "Radioactive Waste Management: Ethics, Law and Policy" (*Nuclear Law Bulletin* No. 46, December 1990) and "Prévention et responsabilité pour le risque technologique: émotions, concepts et réalité" (*La Vie des Sciences* 1996 n°4 – Académie des Sciences); see also *Environmental and Ethical Aspects of Long-Lived Waste Disposal* (NEA/OECD 1995).

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CASE LAW

Japan

Decision rejecting application to close down Tomari nuclear power plant (1999)

On 22 February 1999, the Sapporo District Court in Japan rejected a lawsuit calling for the two units of the Tomari nuclear power plant to cease operations. This lawsuit was brought by almost a thousand plaintiffs who live in Sapporo city and the area around the nuclear power plant. They claimed that their health is jeopardised by the radioactive emissions from the site during normal operations of the plant, accompanied also by the risk of accidents. The Court ruled that no tangible risk had been proved: radiation levels were far less than those from natural sources and adequate preventive measures against accidents were in place. Although the Court rejected the application, the presiding judge referred to the necessity to address the problems caused by radioactive waste.

In March 1999, the plaintiffs decided not to appeal this judgement, therefore the Sapporo District Court Decision became final.

Sweden

Judgement by the Supreme Administrative Court on the closing of Barsebäck 1 (1999)

Through its Decision of 5 February 1998, the Swedish Government ruled, with reference to the Act on the Phasing-out of Nuclear Power (SFS 1997:13320; see *Nuclear Law Bulletin* No. 61) that the right to produce nuclear energy in *Barsebäck* 1 under the terms of the current licence should cease to apply from the end of June 1998. Upon the request of the licence-holder, *Barsebäck Kraft Aktiebolag* (BKAB), the Court decided on 14 May 1998 to suspend the application with the consequence that the Government's Decision should not apply until further notice. At the same time as these proceedings before the Court, the parent company of BKAB, *Sydkraft* AB (*Sydkraft*), applied on 23 February 1998 to the European Commission and requested an intervention by the Commission to protect *Sydkraft's* rights under the 1957 Treaty establishing the European Economic Community. *Sydkraft* alleged that the Decision to close *Barsebäck* 1 is in conflict with competition rules, specifically Articles 86 and 90 of the Treaty establishing the EEC. The Commission has not yet taken position on this case.

Claims

The licence-holder, BKAB, its parent company, *Sydkraft*, and the German company *Preussen Elektra Aktiengesellschaft* (*PreussenElektra*), one of the owners of *Sydkraft*, applied for a judicial review of the Government Decision requesting that it be revoked. Futhermore, the applicants

requested that the Court obtain a preliminary ruling from the European Court of Justice on the interpretation of European law.

The applicants presented the following grounds for their action: they alleged that the Government Decision is in conflict with a number of legal instruments – the Swedish Constitution, national administrative law, the 1957 Treaty establishing the EEC [specifically Articles 34, 52, 73(b), 86 and 90] and the European Convention for the Protection of Human Rights and Fundamental Freedoms. In addition, *Sydkraft* and *PreussenElektra* claimed that the Decision is in conflict with the Energy Charter Treaty, which has been approved by a large number of countries, including Sweden and the European Community.

In short, the applicants pointed to deficiencies in the Phasing-out Act and in the Government's handling of the case, especially as an environmental impact assessment was not carried out prior to the Decision. Furthermore, it was maintained that the Decision is incompatible with EC rules dealing with a free market, namely the freedom of establishment, the free movement of capital, prohibition against restrictions and freedom of competition, as well as with the Electricity Market Directive (Directive 96/92/EC).

The outcome of the judicial review

The Supreme Administrative Court concluded in its judgement of 16 June 1999 that the Act on the Phasing-out of Nuclear Power is compatible with the Swedish Constitution and with the European Convention for the Protection of Human Rights and Fundamental Freedoms. As concerns the allegation that the Decision was not duly prepared by the Government, the Court found that the material supporting the application was of sufficient scope and quality and therefore the Decision does not conflict with the law. With regard to the lack of an environmental impact assessment, the Court concluded that the number of published government reports issued over a number of years prior to the Decision fulfils in substance the same requirements.

As regards the question of the starting point and the order of decommissioning of reactors, the Court stated that the criteria of geographical location, laid down in the Act on the Phasing-out of Nuclear Power, as concerns *Barsebäck* 1, is of special importance when determining the order of decommissioning. The criteria focus on the relationship between the density of population in the vicinity of the reactor and the possible consequences of a severe accident. The Government should be free to give weight to such circumstances as public opinion in Denmark and the observations that have been made by this country. In the view of the Court, the choice to close down *Barsebäck* 1 does not therefore seem to be objectively unfounded. The Court concluded therefore that the Decision could not be considered as discriminating towards the applicants.

On the European law issue, the Court stated that the Government Decision did not entail any breach of the Treaty establishing the EEC rules on establishment, nor did it conflict with the measures laid down in the Electricity Market Directive. Furthermore, the Court considered that the Decision does not affect any transaction that may be described as a movement of capital and therefore does not conflict with Article 73(b)(i) of the Treaty establishing the EEC.

In relation to the claim that this Decision, affecting a privately-owned reactor, constitutes an abuse of the publicly-owned *Vattenfall's* dominant position on the relevant market, the Court came to the conclusion that no breach of competition rules had taken place. In addition, the Court stated that the Decision cannot be declared void with reference to the compensation rules of the Act on the Phasing-out of Nuclear Power. The stipulations on the subject made in the Energy Charter Treaty do not lead to any other assessment.

To summarise, the Court came to the conclusion that none of the objections raised by the applicants constitute grounds for revocation of the Government Decision. The Court did not find either that there is a need to request a preliminary ruling from the European Court of Justice. Furthermore, the Court sees no reason to await the European Commission's investigations connected with the shut-down of *Barsebäck* 1.

The Supreme Administrative Court therefore declared that the Government Decision shall remain in force although the right to operate the nuclear power reactor *Barsebäck* 1 shall not cease before the end of November 1999.

United States

Litigation relating to the Department of Energy's obligations under the Nuclear Waste Policy Act to accept spent nuclear fuel and high-level radioactive waste (1998-1999)

The Department of Energy (DOE) continues to be involved in litigation relating to its contractual obligations under the 1982 Nuclear Waste Policy Act (see *Nuclear Law Bulletin* Nos. 26 and 31) to commence acceptance of spent nuclear fuel and high-level radioactive waste from utilities as of 31 January 1998. Some ten utilities have filed law suits against the DOE for more than 8 billion dollars in damages associated with additional storage costs they have or will incur while waiting for DOE to commence disposal operations.

The Decision of 29 October 1998 handed down by the US Court of Federal Claims in one of those law suits, *Yankee Atomic Electric Co. v. United States*[1] (see *Nuclear Law Bulletin* No. 63) made it clear that the utility, after having fully paid all required fees into the Nuclear Waste Fund pursuant to its Standard Contract with the DOE, and after having shut-down its nuclear power plant in Massachusetts, was entitled to make a claim for damages[2] in court against DOE in respect of the latter's failure to accept spent nuclear fuel from that site on the grounds that the Standard Contract did not provide complete relief for the utility's extra costs incurred in extended storage of that spent nuclear fuel[3].

The Decision of 6 April 1999 handed down by that same Court in another of those law suits, *Northern States Power Co. v. United States*[4] (see *Nuclear Law Bulletin* No. 63) made it equally clear, however, that where a utility still operates a commercial nuclear power plant[5] and is still paying fees into the Nuclear Waste Fund under its Standard Contract with the DOE, that utility must exhaust the administrative remedies available to it under its Standard Contract with DOE in respect of the latter's failure to commence accepting spent nuclear fuel as of 31 January 1998 before it may seek alternative remedies in court, such as a claim for breach of contract.

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1. Case No. 98-126C.

2. It was erroneously reported in *Nuclear Law Bulletin* No. 63 that *Yankee Atomic's* claim for damages was USD 270 million. The amount of this claim was in fact USD 70 million.

3. Similar decisions were handed down by the same Court in Connecticut *Yankee Atomic Power Co. v. United States*, case No. 98-154C on October 30, 1998 and in Maine *Yankee Atomic Power Co. v. United States*, case No. 98-474C on 3 November 1998 (see *Nuclear Law Bulletin* No. 63).

4. Case no. 98-484C.

5. Seven other utilities who have filed suits in the US Court of Federal Claims all have currently operating nuclear power reactors.

Interestingly, the Wisconsin Electric Power Company claimed to have attempted to resolve its dispute with the DOE on extended storage costs by using the administrative remedies available under its Standard Contract[6], but without success. It then filed a petition for review in the US Court of Appeals for the District of Columbia Circuit[7] requesting that DOE, *inter alia*, accept emergency deliveries of waste if necessary to avoid shutdown of the Point Beach nuclear power plant, take title to spent fuel when it is placed in dry storage and take title to all remaining Point Beach spent fuel at a site removed from the plant not later than 5 ½ years after the plant shut-down.

Both the *Yankee Atomic* and the *Northern States Power* cases have been appealed to the US Court of Appeals.

6. Wisconsin Electric Power Company has stated that it is following the 1998 Decision of the US Court of Federal Claims in *Northern States Power Co. v. United States*, case no. 98-484C.

7. *Wisconsin Electric Power Company v. US Department of Energy*, US Court of Appeals for the District of Columbia Circuit, case no. 99-1342.

NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

Australia

Radiation Protection

Radiation Protection and Nuclear Safety Regulations (1999)

The Australian Radiation Protection and Nuclear Safety Act 1998 was proclaimed on 5 February 1999 (See *Nuclear Law Bulletin* No. 63). The Act provides a legal framework for the protection of the health and safety of the public and the environment from the harmful effects of radiation, and establishes the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) as the national regulatory body. In March 1999, the Australian Radiation Protection and Nuclear Safety Regulations (Statutory Rules No. 37) were adopted to implement this Act. Subsequently, these regulations were amended by Statutory Rules No. 97 of 9 June 1999.

Statutory Rules No. 37 consist of 6 Parts, 4 Schedules and a Dictionary. Part 1 of the Regulations contains preliminary provisions, and Part 2 defines the controlled apparatus and facilities (nuclear installations or radiation facilities) which come within the scope of this legislation. Part 3 contains provisions governing members, meetings and general procedures of the Radiation Health and Safety Advisory Council and two advisory committees (the Radiation Health Committee and the Nuclear Safety Committee) that provide expert advice to the Chief Executive Officer (the CEO) of ARPANSA on a range of issues such as developments in the radiation protection and nuclear safety fields. Part 4 covers both facility and source licences, exemptions and applications for licences. The CEO is empowered to issue licences. Part 5 regulates specified practices (dose limits) to be followed. Lastly, Part 6 contains provisions governing reporting and inspection for controlled facilities, apparatus and materials.

According to Part 4 of the Regulations, the CEO must take into account, *inter alia*, the following matters when issuing facility licences:

- whether the application includes all information requested by the CEO;
- whether the information provided establishes that the proposed conduct can be carried out without undue risk to the health and safety of the public and the environment;
- whether the applicant has shown that there is a net benefit from carrying out the conduct related to the controlled facility; and

- whether the applicant has shown that the magnitude of individual dose, the number of people exposed, and the likelihood that exposures will happen, are as low as reasonably achievable, having regard to economic and social factors.

The Regulations lay down in Part 5 the effective dose limit for occupational exposure, which is set at 20 mSv annually, averaged over 5 consecutive calendar years, and the effective dose limit for public exposure, set at 1 mSv annually. The four Schedules of the Regulations govern respectively exposure limits for non-ionising radiation, exempt dealings, information that may be regulated by the CEO (in relation to licence applications) and the identity card of inspectors appointed by the CEO.

The June 1999 amendments to the Regulations, set out in Statutory Rules No. 97, establish the licence application fees for activities involving nuclear installations, prescribed radiation facilities, sealed and unsealed sources of controlled materials and controlled apparatus producing ionising and non-ionising radiation.

Austria

General legislation

Federal Constitutional Act for a Nuclear-Free Austria (1999)

The Federal Constitutional Act for a Nuclear-Free Austria was adopted by the Parliament and entered into force on 13 August 1999. This legislation confirms Austria's policy on both civil and military matters in the nuclear field. It refers to the Act of 15 December 1978 forbidding the use of nuclear fission for the purpose of providing energy (see *Nuclear Law Bulletin* No. 23), which approved Austria's decision not to use nuclear energy for peaceful purposes.

The text of the 1999 Act reads as follows:*

"The Federal Council has ruled that:

1. It shall be forbidden to produce, store, transport, test or use nuclear weapons in Austria. It shall also be forbidden to create installations for the storage of nuclear weapons.

2. It shall be forbidden to construct installations for the production of nuclear energy by nuclear fission in Austria. To the extent that such installations already exist, it shall be forbidden to put them into service.

3. It shall be forbidden to transport fissile materials on Austrian territory, except to the extent that Austria's international obligations are incompatible with this ban. Transport for purely peaceful purposes, with the exception of the production of energy by nuclear fission or the disposal of waste, is excluded from this ban. There are no other exceptions to this ban.

* Unofficial translation established by the OECD.

4. It must be provided by law that damage occurring in Austria as a result of a nuclear accident shall be compensated in an adequate manner and that claims for compensation shall be enforceable to the greatest possible extent against foreign operators who have caused damage.

5. The Federal Government is responsible for the implementation of this Federal Constitutional Act."

Belarus

General Legislation

Amendments to the Law on Legal Treatment of Territories Contaminated as a Result of the Chernobyl NPP Catastrophe (1999)

This Law of November 1991, which regulates the living conditions and economic and other related activities in the area contaminated as a result of the Chernobyl accident, was amended on 26 April 1999. The amendments entered into force on 12 May 1999. They modify the Law as follows:

- the periodicity of defining zones within contaminated areas is changed: the zones will be re-classified every five years;

- the current practice whereby certain activities are carried out in zones with different levels of contamination is updated to take account of experience acquired;

- a more appropriate decision-making procedure for the use of arable land in the contaminated territories is established;

- more specific requirements for the disposal of waste have been drawn up.

The revised Law prohibits the import of radioactive waste from abroad, with the exception of waste resulting from services rendered to Belarus by States under contractual obligations.

Radiation Protection

Decree on Establishing a Uniform State System of Record-keeping and Control of Personal Exposure Doses (1999)

Pursuant to the Law on Radiation Protection of the Public of 5 January 1998 (see *Nuclear Law Bulletin* Nos. 60 and 61), Decree No. 929 on Establishing a Uniform State System of Record-keeping and Control of Personal Exposure Doses was adopted on 17 June 1999. It establishes the procedure for the establishment and operation of the State system for control of personal exposure doses. The Decree provides that controls are carried out on professionally-exposed persons, persons exposed for medical purposes, persons living in the territories where the effective dose resulting from natural exposure may be higher than 2mSv, and persons living in the territories where the effective dose resulting from artificial exposure may be higher than 1 mSv.

The Ministry of Health is responsible for organising and maintaining the state dose register which is to be put into operation in 2001.

Belgium

Organisation and Structure

Act containing Budgetary and Miscellaneous Provisions (1999)

The Act of 3 May 1999 containing Budgetary and Miscellaneous Provisions partially amends the Act of 15 April 1994 on Protection of the Population and the Environment against the Dangers of Ionising Radiation and providing for the setting up of the Federal Agency for Nuclear Control (see *Nuclear Law Bulletin* Nos. 53 and 54). These amendments were introduced in order to establish transitional legal measures to allow the Agency to become operational as soon as possible through staff placements and the making available of allocated budgetary commitments.

Civil servants from the Division of Technical Safety of Nuclear Installations, which is part of the Ministry of Employment and Labour, and from the Division for Protection against Ionising Radiation, which is part of the Ministry of Social Affairs, Public Health and the Environment, have been made available to the Agency (see *Nuclear Law Bulletin* No. 61). This transfer has been carried out on a voluntary basis, and the civil servants maintain the rights and benefits which they had in their original position. The Agency is to completely reimburse the services from which the civil servants have been transferred for the budgetary expenses resulting from these transfers. During this transitory period, which shall not exceed two years, the Agency is required to adopt Staff Rules. When this has been completed, it will be possible to commence final selection and transfer of staff.

A new provision has also been added which allows the Agency to receive and use the payments necessary to cover its operating costs before the entry into force of the provision governing its effective powers, as some of the provisions of the 1994 Act have not yet entered into force.

Finally, the Act of 3 May 1999 gives retroactive effect to the above provisions, which are stated to apply as of 1 January 1998, date on which some of the provisions of the 1994 Act came into effect.

Bosnia and Herzegovina

General Legislation

Law on Radiation Protection and Nuclear Safety (1999)

A new Law on Radiation Protection and Nuclear Safety, which repealed and replaced a Law on the same subject adopted by the former Yugoslav Parliament, was adopted on 24 January 1999 by the Parliament of Bosnia and Herzegovina (See *Nuclear Law Bulletin* No. 64). This Law, which is based on the IAEA Basic Safety Standards, provides framework legislation and establishes a national

regulatory body for radiation protection and safety, the Administration for Radiation Protection and Radiation Safety.

The Law comprises 10 Chapters, divided into 55 Sections: General provisions, Requirements governing radiation practices, Exposure, Sources, Radioactive Waste, Supervision and Authorities, Finances, Penalties, Authorisations to adopt implementing regulations, Transitional and Final provisions.

The Law is based on the principles of justification and optimisation, dose limitation, authorisation, and the primary responsibility of the licensee. It establishes general and special measures for protection against ionising radiation, and provides for systematic monitoring of radioactivity in food and the environment.

This Law sets out the main principles for the protection of radiation workers: prior evaluation of risk and optimisation of protection, classification of work places and of workers, exposure monitoring and medical surveillance.

It also defines specific health protection rules in relation to medical exposure to ionising radiation. The main provisions consist of qualification requirements for the medical staff involved, conditions for the use of radiological equipment, written protocols for each type of radiological practice, and the role of medical physics experts.

The Law regulates the conditions which must be met by legal entities performing activities involving the use of ionising radiation: the facilities shall apply technical, safety, sanitary and other standards for radiation protection and safety; they shall possess technical and protective equipment, as well as programmes and plans by means of which quality in relation to radiation sources is ensured; finally, measures for removal of radioactive waste and spent radiation sources shall be taken.

Natural and legal persons may perform activities involving ionising radiation only if they have been granted a preliminary permit by the Administration for Radiation Protection and Radiation Safety. Legal entities performing activities involving ionising radiation must nominate a person responsible for radiation protection who will perform the following activities:

- internal supervision of radiation sources, personnel working with these sources and protective measures against ionising radiation;
- monitoring the personal dosimeter service and carrying out of medical examinations for personnel working with radiation sources;
- setting up and maintaining a registry on radiation sources, personnel working with radiation sources, etc.;
- organisation of protective measures in the event of an accident;
- participation in inspections and informing the competent institution or inspector in the event of violation of the rules.

The Law furthermore provides for the legal requirements for radioactive waste management. The waste producer bears the responsibility for the management of his radioactive waste, and must make financial and material arrangements to cover the collection, transport, treatment, conditioning and disposal of waste arising from his activities.

This legislation also prescribes the obligations of the Government of Bosnia and Herzegovina in the event of a nuclear accident. In such a case, the Government is authorised to establish, on the preliminary proposal of the Administration for Radiation Protection and Radiation Safety, plans and programmes for the protection of the life and health of the public and of the environment.

The Law establishes the Administration for Radiation Protection and Radiation Safety (which is an integral part of the Ministry of Health) as the regulatory body responsible for these fields in Bosnia and Herzegovina. This Administration is responsible for the following activities:

- issuing regulations, technical documents, standards and instructions for radiation protection of professionally-exposed persons, the public and the environment from radiological hazards, and for physical protection, safeguards, transport, import, export and transit of radioactive materials;

- ensuring that appropriate records are kept and corrective actions are taken concerning, *inter alia*, matters such as radiation exposure of personnel, radioactive releases, incidents, etc.;

- delivering, amending and revoking licences, and making decisions in relation to radioactive waste; carrying out of regulatory inspections;

- managing a registry on radiation sources and personnel who work with radiation sources; organising educational measures for such workers;

- carrying out statistical, scientific, and other research in the field of radiation protection and safety;

- supervision, monitoring and analyses of the radiation situation in Bosnia and Herzegovina.

The Administration is independent, co-operating with the Parliament and the Government through the Minister of Health. Supervision is performed by the Federal Inspectors for Radiation Protection and Radiation Safety. These Inspectors have the following duties:

- to ensure authorisation of activities involving radiation sources and to order the removal of identified irregularities and insufficiencies within a determined deadline;

- to prohibit work institutions which no longer meet the set conditions in respect of premises, staff and technical and other equipment;

- to order additional specialist training for all workers who have been identified as lacking in such expertise, and if necessary, to re-examine their qualifications.

The Law provides for sanctions in the event of a breach of its provisions by legal entities.

Brazil

Organisation and Structure

Reorganisation of the Scope of Activities of Different Ministries in the Field of Nuclear Energy (1999)

Provisional Measure No. 1911-8 was adopted on 29 July 1999 in order to partly amend Law No. 9649 of 27 May 1998 on the Organisation of the Presidency of the Republic and of Other Ministries **[**the Measure was published in the *Diario Oficial* (Official Journal) of 30 July 1999]. The Provisional Measure sets out the powers and duties of the Ministry of Mines and the Ministry of Sciences and Technology which are responsible for nuclear energy and for nuclear policy, respectively.

More specifically, the Ministry of Mines and Energy is responsible for activities resulting from the generation of electricity from all sources, including nuclear energy. The Ministry of Sciences and Technology is responsible for defining and evaluating programmes of a strategic nature, *inter alia*, in the field of the peaceful uses of nuclear energy. The latter task previously lay within the powers of the Secretariat for Strategic Affairs.

As a result of the above Provisional Measure, Decree No. 3131 was adopted on 9 August 1999, in order to place the National Nuclear Energy Commission (CNEN) under the aegis of the Ministry of Science and Technology. Previously, the CNEN was attached to the Secretariat for Strategic Affairs (see *Nuclear Law Bulletin* No. 56). The CNEN continues to carry out its statutory duties, namely the policy, planning, monitoring and control of nuclear energy.

Bulgaria

Radiation Protection

Regulation on Planning and Preparedness for Action in the case of a Radiation Accident (1999)

This Regulation was adopted on 26 March 1999 and entered into force on 9 April 1999. It determines the respective duties of State bodies and local administration in this field, as well as the obligations of the operator of a nuclear power plant. This Regulation also identifies actions which should be taken in the case of an emergency, and defines updated criteria for the adoption of various protective measures for the population in the event of a radiation accident.

Chinese Taipei

Third Party Liability

Nuclear Damage Compensation Law (1997)

The 1971 Nuclear Damage Compensation Law was amended on 14 May 1997. The modifications made to this Act, which for the most part concern definitions, liability amounts and compulsory insurance, were discussed in *Nuclear Law Bulletin* No. 60. This amendment entered into force on 14 May 1998. The text of this Act is reproduced in the chapter "Texts" of this *Bulletin*.

Estonia

Transport of radioactive materials

Decree on the Safe Transport of Radioactive Materials (1998)

The Estonian Government adopted this Decree (which also covers radioactive waste) on 4 August 1998. Its provisions harmonise existing local transport legislation with the requirements of IAEA technical regulations and EU Directives. The Decree contains general provisions on radiation safety and emergency response; activity and fissile material limits; requirements for packaging, marking, labelling, transport and storage in transit; administrative requirements; and documentation.

France

Radiation Protection

Orders Establishing Rules Governing the External Dosimetry of Workers Exposed to Radiation and on the Accreditation of Persons Qualified in Radiation Protection (1999)

These two Orders of 23 March 1999 were adopted in implementation of Decree No. 75-306 of 28 April 1975 (see *Nuclear Law Bulletin* No. 16) and Decree No. 86-1103 of 2 October 1986 (see *Nuclear Law Bulletin* No. 38) concerning the Protection of Workers against the Dangers of Ionising Radiation, last amended by two Decrees bearing the references 98-1185 and 98-1186 of 24 December 1998 (see *Nuclear Law Bulletin* No. 63).

The Order establishing Rules Governing the External Dosimetry of Radiation Workers specifies that the control of dose equivalents received by workers in Category A, or those who work in a controlled zone and are subject to a risk of external exposure, is carried out using individual dosimeters which measure the exposure in real time (operational dosimetry) and at pre-determined times (passive dosimetry). It repeals the Order of 19 April 1968 (see *Nuclear Law Bulletin* No. 2) establishing the conditions for use of Individual Dosimeters Designed to Monitor Dose Equivalents.

The technical modes of implementation of the dosimetry, particularly operational, as well as the transfer of data involved are set out in an Annex.

The Order laying down Rules concerning the Accreditation by the Board for Protection against Ionising Radiation of Persons Qualified in Radiation Protection defines the method of accreditation of "persons qualified in radiation protection or from the service responsible for radiation protection" who have access to the individual results of the exposure of workers subject to this control, over a reference period which shall not be longer than the last twelve months.

Radioactive Waste Management

Decree implementing Article 14 of the Act of 30 December 1991 relating to Research on Radioactive Waste Management (1999)

Article 14 of Act No. 91-1381 of 30 December 1991 (see *Nuclear Law Bulletin* Nos. 49 and 50) provides for the creation, on the site of each underground laboratory, of a local information and monitoring Committee which is consulted on all questions related to the operation of laboratories which have an effect on the environment and on the neighbourhood.

A Decree implementing this legislation was adopted on 3 August 1999 (No. 99-686). It principally defines the composition of this Committee, which comprises the Prefect of Police (*Préfet*) of the Department, the Regional Director for Industry, Research and the Environment, the Chairpersons of the Departmental Chamber for Agriculture and the Chamber of Commerce and Industry, a representative of the entity holding the licence for operation of the laboratory, the Chairperson of the Scientific and Technical Association, MPs, elected representatives of the local communities consulted in the context of the public enquiry, and representatives of environmental protection associations, agricultural unions, nation-wide professional organisations and personnel of the site.

Decree to implement Article 6 of the Act of 30 December 1991 relating to Research on Radioactive Waste Management (1999)

Article 6 of Act No. 91-1381 of 30 December 1991 (see *Nuclear Law Bulletin* Nos. 49 and 50) provides that any project for the construction of an underground laboratory shall, before any preliminary research work is undertaken, be discussed with the elected representatives and population of the sites concerned. In order to fulfil this requirement, Decree No. 99-687 of 3 August 1999 establishes a mission of three persons, designated jointly by the Ministry of Economy, Finance and Industry and the Secretary of State for Industry, who is responsible for organising preliminary consultations before a choice is made in relation to one or more granite sites where the initial work leading to the establishment of an underground laboratory could be carried out. This mission initiates all useful consultations with the elected representatives, associations and the public concerned; it then incorporates all observations received into a report for the Ministers for the Environment, Energy and Research.

The Evaluation Commission, established by the Act of 30 December 1991, is requested to give its opinion on all work envisaged during this consultation.

The National Radioactive Waste Management Agency (ANDRA) may not commence any preliminary research, including in particular geological and geophysical studies or drilling, until the mission's report has been submitted.

Decree authorising the Operation of an Underground Laboratory (1999)

Pursuant to this Decree of 3 August 1999, the National Radioactive Waste Management Agency (*Agence nationale pour la gestion des déchets radioactifs* – ANDRA*)* is authorised to install and operate an underground laboratory on the territory of the commune of Bure (Meuse) with a view to studying deep geological formations where radioactive waste could be stored.

The investigations and experiments aim to compile data on the design, optimisation, reversal potential and safety of a possible radioactive waste storage facility.

The underground laboratory will consist of a series of structures and equipment including surface installations, underground installations and two communicating wells between them.

This licence has been granted to ANDRA until 31 December 2006. Beyond this date, in order to continue operations in the laboratory, it will be necessary to obtain a Decree of the Supreme Administrative Court (*Conseil d'Etat).*

Order authorising Électricité de France to Continue Using Water Supplies and Releasing Liquid and Gaseous Waste for the Operation of the Nuclear Installation at Saint-Laurent-des-Eaux (1999)

This Order of 2 February 1999 sets out the characteristics of waste procedures, maximum limits of radioactive waste and the conditions governing control, analysis, verification and supervision of this waste by the operator, as well as the control operations which are to be carried out by the Board for Protection against Ionising Radiation. It also specifies the obligation to inform the authorities and the public, in particular in relation to accidents or anomalies, releases and their impact on the environment, and the operation of the installations themselves, including any changes which may have been introduced.

Japan

General Legislation

Amendment to the Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors (1999)

The Law No. 166 for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors (hereinafter referred to as the "Regulation Law") was amended by Law No. 75 of 1999.

The storage of spent nuclear fuel is included within the scope of this Law. Persons who undertake the storage of spent nuclear fuel outside nuclear power plants or other nuclear installations as specified in the Regulation Law are required to obtain a licence from the Minister for International Trade and Industry and are subject to supervision during the operation of the spent fuel storage facility.

In December 1998, Japan signed an Additional Protocol to the Safeguards Agreement which they concluded with the IAEA. To incorporate the requirements of this Protocol, the following new provisions were added to the Regulation Law:

- persons who undertake internationally specified activities, defined as the activities listed in Annex I of the Additional Protocol, are to report to the Prime Minister;

- the users of internationally-controlled materials are subject to regular inspection by the services of the Prime Minister to the extent necessary for the implementation of safeguards; and

- an IAEA officer may enter the offices of the users of internationally-controlled materials, factories, or other premises in order to conduct necessary inspections in the presence of the person designated by the Prime Minister, within the scope as determined by the Additional Protocol.

Third Party Liability

Amendment to the Law on Compensation for Nuclear Damage (1999)

As previously indicated in *Nuclear Law Bulletin* No. 63, the Law on Compensation for Nuclear Damage (Law No. 147 of 17 June 1961, hereinafter referred to as "the Compensation Law") was amended by Law No. 37, adopted on 28 April 1999 (published in the Official Journal on 10 May 1999), which will enter into force on 1 January 2000. This amendment provides that nuclear damage resulting from transport, storage or disposal incidental to the storage of nuclear spent fuel are included within the scope of the Compensation Law.

The Compensation Law requires operators to take out insurance or other financial security in the amounts prescribed in the Ordinance for the Enforcement of the Law on Compensation for Nuclear Damage. Taking into account the recent developments of the nuclear liability conventions and the capacity of the nuclear insurance market, the maximum amounts for financial security have been doubled, from JPY (yen) 30 billion to JPY 60 billion (approximately 395 million SDRs at the rate of 24 August 1999), for the operation of nuclear reactors and the reprocessing of spent fuel.

The time limits governing the provisions dealing with indemnity agreements and with state aid have been extended from 1999 to 2009.

Kazakhstan

Radiation Protection

Law on Radiation Safety of the Population (1998)

The Law on Radiation Safety of the Population was adopted by the Parliament and signed by the President on 23 April 1998. It reflects the main aspects of national policy regarding radiation safety of the public. This Law aims to protect the public and the environment from the harmful effects of ionising radiation, and, in particular, to protect the interests of present and future generations. It

regulates radiation safety through legal, administrative, engineering, technical, sanitary and educational measures, implementing the principles of justification, optimisation and limitation of exposure doses. The Law sets out the rights of individuals in the field of radiation safety, the duties of users of ionising radiation sources and the responsibilities of the competent State authorities. It provides details on annual dose limits for radiation workers and for the public and contains provisions governing emergency situations, quality assurance, accountability and information.

Latvia

Radiation Protection

Regulations on Control of Radioactive Contamination in Animal Feeding Products (1999)

These Regulations were adopted on 9 March 1999. They replace the relevant provisions of the national Basic Safety Standards, and fully implement the Euratom Directives in this field. The principal change brought about by the adoption of this legislation, similar to that introduced in the 1998 Regulations on the Control of Radioactive Contamination in Food Products (see *Nuclear Law Bulletin* No. 62), is the increase in post-accident values (more than three months after the incident) which have also been defined numerically. These values have been established on the assumption that during the first three months after an incident, it would be possible to introduce adequate protection measures in order to reduce the limits currently set out in EU legislation by a factor of five.

Radioactive Waste Management

Regulations on Radioactive Waste Management (1999)

These Regulations were adopted on 3 August 1999. They set out basic principles for radioactive waste management: limitation of individual and collective doses, justification of practices, minimisation of waste and protection of future generations.

The Regulations establish clearance procedures for releases and set out criteria and requirements for reuse, recycling and dispersion of waste, as well as waste acceptance criteria. They also prescribe the responsibilities of waste producers, radiation safety officers at facilities, the radioactive waste management organisation (*Radons*) and state authorities. The Regulations furthermore introduce long term safety and environmental impact assessments, and classify waste into four groups for accounting purposes. Furthermore, they lay down requirements for handling and packaging (including standardisation of waste packs) and for transboundary movement of radioactive waste, and rules for marking of radioactive waste disposal sites after final closure. They introduce the obligation to return spent sealed sources to producers and set out procedures governing international shipments of radioactive waste. They also establish rules for site selection, including public hearings for new disposal facilities or safety-relevant modifications at existing sites.

Lithuania

Radiation Protection

Law on Radiation Protection (1999)

A new Law on Radiation Protection was adopted by the Lithuanian Parliament on 12 January 1999 and it entered into force on 1 April 1999 (see *Nuclear Law Bulletin* No. 63). The text of this Law is reproduced in the Supplement to this *Bulletin*.

Radioactive Waste Management

Law on the Management of Radioactive Waste (1999)

This new Law was adopted by the Lithuanian Parliament on 20 May 1999. This Law establishes the rights, duties and functions of the State executive and supervisory authorities and of persons and legal entities involved in radioactive waste management, including its export and transit. The Law is divided into 10 Chapters governing *inter alia* licensing; responsibilities of waste generators; creation of the Radioactive Waste Management Agency and the Radioactive Waste Management Fund; and requirements concerning radioactive waste management facilities including their siting, design, construction, commissioning, operation, decommissioning and control after closure.

The Lithuanian Nuclear Power Safety Inspectorate (VATESI) has the primary role in regulating the safety of radioactive waste management. This includes the responsibility for issuing licences for activities related to radioactive waste management, including the design, construction or reconstruction, operation, decommissioning or permanent closure of radioactive waste management facilities. Together with VATESI, the Radiation Protection Centre of the Ministry of Health and the Ministry of the Environment are also responsible for establishing procedures for the import, export, transit, transportation and disposal of radioactive waste. The Radiation Protection Center is furthermore entrusted with the task of issuing licences for the transport of radiactive waste.

The Law provides for the creation of a storage facility or repository as well as a Radioactive Waste Management Agency. The Agency's objective will be to manage radioactive waste transferred to it by the waste generators, ensuring nuclear and radiation safety. A Radioactive Waste Management Fund is also to be established.

The burden of all expenses related to radioactive waste management lies with the waste generator until the radioactive waste is transferred to the Radioactive Waste Management Agency or is exported from Lithuania.

The text of this Law is reproduced in the Supplement to this *Bulletin*.

Netherlands

Organisation and Structure

Royal Decree on the Transfer of Responsibility for the Implementation of the Nuclear Energy Act (1999)

A Royal Decree on the Transfer of Responsibility for the Implementation of the Nuclear Energy Act of 21 February 1963 (see *Nuclear Law Bulletin* No. 3) was adopted on 21 June 1999 (published in *Staatsblad* No. 275). The Decree transfers the primary responsibility in the nuclear energy field, as established in the Nuclear Energy Act, from the Minister of Economic Affairs to the Minister of Housing, Spatial Planning and the Environment.

Slovenia

Regulations on nuclear trade

Amendments to the Decree on Imports and Exports of Specified Goods (1999)

The Decree on Imports and Exports of Specified Goods (Official Gazette, 75/95), which implements the Law on Radiation Protection and the Safe Use of Nuclear Safety, adopted by the ex-Yugoslavian Parliament on 21 November 1984 (see *Nuclear Law Bulletin* Nos. 35 and 36), was amended by the Government of the Republic of Slovenia in February 1999.

Through these amendments, Slovenia has established a comprehensive export control regime for nuclear equipment and material especially designed or prepared for processing, use or production of special fissionable material. Slovenia therefore fulfils the requirements of the Treaty on the Non-proliferation of Nuclear Weapons concerning the prohibition on supplying such items to non-nuclear-weapon states.

Ukraine

Organisation and Structure

Decree on State Nuclear Regulatory Administration Matters (1999)

On 15 June 1999, the Cabinet of Ministers of Ukraine adopted a Decree to implement the Presidential Decree of 13 March 1999 on the Reorganisation of the Nuclear Control Structures (see *Nuclear Law Bulletin* No. 63). This implementing Decree governs personnel and administrative aspects in relation to the new nuclear regulatory authority – the State Nuclear Regulatory Administration of Ukraine – which has the status of a central state executive body and reports to the Minister for Environmental Protection and Nuclear Safety. The Administration comprises approximately ninety members of staff, who will be supervised by two Deputy Heads of Administration and a Board. The Decree establishes, *inter alia*, the 1999 budget for the State Nuclear Regulatory Administration.

Third party liability

Law Authorising the Accession by Ukraine to the 1988 Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention (1999)

On 17 November 1999, the Parliament of Ukraine (*Verkhovna Rada*) adopted the Law Authorising the Accession by Ukraine to the 1988 Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention.

INTERNATIONAL REGULATORY ACTIVITIES

International Atomic Energy Agency

Resolutions adopted by the IAEA General Conference (1999)

The 43rd Session of the IAEA General Conference was held in Vienna from 27 September to 1 October 1999 with delegations from 111 Member States and representatives of various international organisations in attendance. Resolutions were adopted *inter alia* in the following areas:

Nuclear, Radiation and Waste Safety

The Conference adopted a number of Resolutions to strengthen international co-operation in these fields. Resolution No. 10, "Safety of Radiation Sources and Security of Radioactive Materials", notes the General Conference's appreciation for the report on how national safety systems in these areas can be operated at a high level of effectiveness and urges the IAEA Secretariat to implement the related action plan. Resolution No. 11, "Safety of Transport of Radioactive Materials", encourages the Member States to make use where appropriate of the Transport Safety Appraisal Service established by the Agency Secretariat with a view to achieving the highest possible levels of safety during the transport of radioactive materials. In Resolution No. 12, "The Radiological Protection of Patients", the General Conference, concerned about the numerous cases of accidental overexposure of radiotherapy patients, requests the Secretariat to organise, in collaboration with the World Health Organisation, an international meeting on the radiological protection of patients for the purpose of an exchange of information and the development of recommendations regarding the radiological protection of patients. Lastly, in Resolution No. 13, the General Conference expresses its satisfaction in the outcome of the First Review Meeting of the Contracting Parties to the Convention on Nuclear Safety (the report of this review meeting is reproduced in the chapter "Texts" of *Nuclear Law Bulletin* No. 63). It welcomes the ongoing development of the Agency's review services addressing the national implementation of obligations under, on the one hand, the Convention on Nuclear Safety and, on the other, the Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. The General Conference invites those States which have not yet taken the necessary steps to become party to the above-mentioned Conventions to do so. It also encourages co-operation between States with a view to organising international intercomparison exercises relating to measurements for the control of occupational and other exposures.

Strengthening IAEA Technical Co-operation

This Resolution encourages the continuation of the Agency's policy on the development of effective programmes aimed at improving the scientific, technological and regulatory capabilities of

developing countries, through provision of support regarding peaceful uses of atomic energy and nuclear technologies and production of nuclear energy. The Resolution emphasises that these programmes should contribute to achieving sustainable development, particularly in the least developed countries.

Strengthening the IAEA's Safeguards System

In this Resolution, the General Conference welcomes the fact that 45 States and other Parties to IAEA safeguards agreements have signed Additional Protocols aimed at strengthening the effectiveness and improving the efficiency of the safeguards system. It requests all concerned States and other Parties to sign Additional Protocols promptly and urges all signatories to bring these Protocols into force as soon as possible.

Safeguards in the Democratic People's Republic of Korea (DPRK)

This Resolution expresses the General Conference's concern over the DPRK's continuing non-compliance with its 1992 IAEA Safeguards Agreement. It calls upon the DPRK to fully comply with it, to co-operate with the Agency on its implementation and to take all steps the Agency may deem necessary to preserve information relevant to verifying the accuracy and completeness of the DPRK's initial report on the inventory of nuclear material subject to safeguards, until the DPRK is in full compliance with the Agreement.

Non-proliferation Safeguards in the Middle East

This Resolution affirms the urgent need for States in the Middle East to forthwith accept the application of full-scope Agency safeguards to all their nuclear activities as a step towards establishing a nuclear-weapon-free zone in that region. In this respect, it calls upon all States concerned to take the steps required for the establishment of such a zone and to adhere to international non-proliferation regimes.

Illicit Trafficking in Nuclear Materials

This Resolution welcomes the IAEA's activities in the fields of prevention, response, training as well as information exchange in support of efforts against illegal trafficking, and supports continuing work in this area.

Nuclear Inspections in Iraq

In this Resolution, the General Conference expresses its concern about the Agency's inability to carry out its ongoing monitoring and verification activities related to Iraq's clandestine nuclear programme, and it invites Iraq to comply with the relevant UN Security Council Resolutions. The Resolution also emphasises the importance of maintaining the Agency's rights of access with a view to resumption of its monitoring activities in Iraq in accordance with its mandate.

European Union

Regulation laying down detailed rules for the application of the 1990 Regulation on imports of agricultural products originating in third countries following the Chernobyl accident (1999)

On 27 July 1999, the European Commission adopted Regulation No. 1661/1999 (Official Journal of 29 July 1999) laying down detailed rules for the application of 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 (see *Nuclear Law Bulletin* No. 42).

This Regulation updates and completes the rules for application of the 1990 Regulation in order to strengthen the provisions governing the sampling of various agricultural products and their biological analysis. Checks, carried out by the importing Member State, on the radiocaesium content of certain agricultural products ensure that the maximum permitted levels laid down by the 1990 Regulation are observed. This Regulation furthermore establishes more stringent controls for certain specific products such as animals for slaughter, and mushrooms.

In the event of failure to comply with the maximum permitted levels, the competent authorities of the Member State may require the product concerned to be destroyed or to be returned to its country of origin. A procedure for exchange of information is established between the European Commission and the Member States, dealing with cases of non-compliance with the stated levels.

Recommendation on a classification system for solid radioactive waste (1999)

On 15 September 1999, the European Commission adopted Recommendation 1999/669 on a classification system for solid radioactive waste (Official Journal of 13 October 1999). This Recommendation aims to harmonise methods of classification of such radioactive waste between Member States in order to facilitate their co-operation within the common market and the free movement of goods and services. This system will be used to provide information to the public, the national and international institutions and the non-governmental organisations on solid radioactive waste.

The Member States and their nuclear industry are invited to adopt a common classification system of radioactive waste in order to improve national and international communication as well as to facilitate information management in this field.

The European Commission proposes a classification system for radioactive waste management based on the characteristics and properties of the waste involved, as well as their potential effects on the public and the environment. Three principal categories are listed:

- transition radioactive waste;
- low and intermediate level waste, including short-lived waste and long-lived waste;
- high level waste.

The Recommendation provides that national systems of waste classification may be used in parallel with the community system until 1 January 2002.

AGREEMENTS

BILATERAL AGREEMENTS

Armenia – Ukraine

Agreement on Technical Co-operation and Information Exchange in the Field of Nuclear Safety (1999)

This Agreement was signed by the Armenian Nuclear Regulatory Authority and the Ministry for Environmental Protection and Nuclear Safety of Ukraine on 20 July 1999. It provides for co-operation between these countries, *inter alia*, in the following fields:

- safety of nuclear installations during their lifetime;
- radiation protection and safe management of radioactive waste;
- licensing of nuclear installations;
- development, implementation and revision of legislative and technical documents as well as safety criteria; and
- exchange of technical reports from operating organisations concerning safety assessments of nuclear installations containing ionising radiation sources and radioactive waste.

Brazil – United States

Agreement for Co-operation concerning Peaceful Uses of Nuclear Energy (1997)

This Agreement was signed by Brazil and the United States on 14 October 1997 and entered into force on 15 September 1999. It provides for co-operation and exchange in various fields including:

- development, design, construction, operation and maintenance of reactors, and their decommissioning;
- use of nuclear material in physical and biological research, medicine, agriculture and industry;

- fuel cycle studies to meet future world-wide civil nuclear needs, including multilateral co-operation to guarantee nuclear fuel supply and techniques for management of nuclear wastes;

- safeguards and physical protection of nuclear materials, equipment and components;

- nuclear-related health, safety and environmental considerations related to the foregoing;

- assessing the role nuclear power may play in national energy plans.

The Agreement also states that nuclear material transferred may not be reprocessed in the receiving country and uranium transferred may not be enriched without prior agreement of the Parties. There may be no explosive or military applications of transferred material. Furthermore, IAEA safeguards apply to all nuclear activities.

People's Republic of China – United States

Agreement on Co-operation concerning Peaceful Uses of Nuclear Technologies (1998)

This Agreement, which completes the Agreement concerning Peaceful Uses of Nuclear Energy concluded on 23 July 1985 between the same States (see *Nuclear Law Bulletin* No. 36), was signed by the State Development Planning Commission of the People's Republic of China and the Department of Energy of the United States of America on 29 June 1998. It entered into force on the same date.

The Agreement provides for co-operation between the two Parties in activities supporting peaceful nuclear technologies, including exchange of experience and results of design programmes, exchange of personnel, and joint research and development projects.

This co-operation covers the following fields:

- light-water nuclear power reactors technologies;

- prevention and treatment of radiation occupational disease, and application of radiation technology and radioactive isotopes to medicine;

- radiation protection;

- environmental remediation, radioactive and chemical waste and spent fuel management;

- export control of nuclear materials, equipment and technologies; and

- nuclear materials protection, control and accounting.

In order to supervise and co-ordinate the implementation of this Agreement, a Joint Co-ordinating Committee on Co-operation in Peaceful Uses of Nuclear Technologies shall be established.

The Agreement prohibits the use of nuclear technology transferred or acquired pursuant to this Agreement for non-peaceful purposes.

It also contains provisions governing the protection of intellectual property rights and liability for nuclear damage resulting from the implementation of this Agreement.

Czech Republic – Germany

Agreement for the Exchange of Information in the Nuclear Energy Field (1999)

This Agreement was signed by the State Office for Nuclear Safety of the Czech Republic and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of Germany on 17 March 1999 and entered into force on the same date. It provides for exchange of safety-related information concerning the regulation of siting, construction, commissioning, operation and decommissioning of nuclear installations. The Parties to this Agreement undertake to inform each other on:

- legislative and regulatory instruments, codes, standards, criteria and guides;
- technical reports and safety assessments made by either Party;
- reports on radiological incidents, press and public reactions to incidents, and specific information concerning events having major radiological significance and remedial actions taken as a result of such events.

The Agreement specifies conditions for use and dissemination of information received under this Agreement.

This Agreement will remain in force for five years, and its validity may be extended upon mutual agreement.

Czech Republic – Russian Federation

Supplement to the 1994 Agreement on Co-operation in the Field of Nuclear Energy (1999)

A Supplement to the Agreement on Co-operation in the Field of Nuclear Energy of 4 December 1994 (see *Nuclear Law Bulletin* No. 56) was concluded by the Czech Republic and the Russian Federation on 15 April 1999 and entered into force on the same date.

It amends certain articles of the Agreement concerning collaboration in the field of the nuclear fuel cycle and extends its scope to research reactors. It also amends the articles governing trade of nuclear fuel for Czech nuclear power stations. The articles as amended by this Supplement provide for the possibility of producing nuclear fuel for Czech reactors from uranium of Czech origin, and for reprocessing of spent fuel from both power and research reactors.

France – Japan

Co-operation Agreement on the Management and Disposal of Radioactive Waste (1999)

On 10 May 1999, the Japan Nuclear Cycle Development Institute (JNC) and the National Radioactive Waste Management Agency (ANDRA) of France concluded a Co-operation Agreement on the Management and Disposal of Radioactive Waste. This Agreement aims to further co-operation beyond that existing already between the JNC and the French Atomic Energy Commission on the management and disposal of radioactive waste, and to extend its scope to geological disposal of high level waste, which is under the jurisdiction of ANDRA.

This Agreement covers all fields of research on radioactive waste management. The co-operation will be carried out through, *inter alia*, reciprocal assistance, technical support, exchange of staff and regular meetings.

France – Ukraine

Agreement on the Peaceful Uses of Nuclear Energy (1998)

This Agreement was signed by France and Ukraine on 3 September 1998. It provides for co-operation covering, *inter alia*, exchange and training of scientific and technical personnel, joint research and engineering activities, supply of nuclear material and transfer of technology.

Furthermore, this Agreement prohibits the use of nuclear material, equipment and technology transferred under this Agreement for military purposes. The Parties shall also ensure that the level of physical protection of nuclear materials subject to this Agreement complies with the requirements of the 1980 Convention on Physical Protection of Nuclear Material and IAEA technical documents.

Romania – United States

Agreement concerning Peaceful Uses of Nuclear Energy (1999)

On 15 August 1999, Romania and the United States signed an Agreement concerning Peaceful Uses of Nuclear Energy, which entered into force on 25 August 1999. It provides for co-operation and exchange of information in various fields including:

- development, design, construction, operation and maintenance of reactors, and their decommissioning;

- use of nuclear material in physical and biological research, medicine, agriculture and industry;

- fuel cycle studies to meet future world-wide civil nuclear needs, including multilateral co-operation to guarantee nuclear fuel supply and techniques for management of nuclear wastes;

- safeguards and physical protection of nuclear materials, equipment and components;

- nuclear-related health, safety and environmental considerations related to the foregoing; and

- assessment of the role nuclear power may play in national energy plans.

The Agreement also states that nuclear material transferred may not be reprocessed in the receiving country, and uranium transferred may not be enriched without prior agreement of the Parties. There may be no explosive or military applications of transferred material. Furthermore, IAEA safeguards apply to all nuclear activities.

Russian Federation – Syria

Agreement on Co-operation on the Peaceful Uses of Nuclear Power (1999)

On 21 May 1999, the Russian Federation and Syria signed an Agreement of Co-operation on the Peaceful Uses of Nuclear Power. This Agreement aims to expand scientific, technical and economic ties between the two Parties.

Slovak Republic – Ukraine

Agreement on Early Notification of Nuclear Accidents, Exchange of Information and Co-operation in the Field of Nuclear Safety and Radiation Protection (1998)

This Agreement was concluded between the Government of the Slovak Republic and the Cabinet of Ministers of Ukraine on 24 September 1998 and entered into force on 25 February 1999.

The Agreement shall be applied in the event of any accident involving facilities or activities, as defined in the Agreement, under the jurisdiction or control of one of the Parties, where a significant transboundary release of ionising radiation is taking place or is likely to occur.

In order to minimise the radiological consequences of such accidents, the Agreement prescribes early notification and assistance in the case of emergency.

The Agreement also provides for exchange of information on safety of nuclear facilities and on activities involving a risk of release of radioactive materials. Furthermore, the Agreement aims to promote the development of scientific and technical co-operation in the field of nuclear safety and radiation protection, including monitoring of radioactive releases, radiation emergency planning and management of spent nuclear fuel and radioactive waste.

Slovenia – United States

Renewal of the Arrangement on the Exchange of Technical Information and Co-operation in Nuclear Safety Matters (1999)

On 29 April 1999, the United States Nuclear Regulatory Commission (USNRC) and the Slovenian Nuclear Safety Administration (SNSA) signed the renewal of the Arrangement on the Exchange of Technical Information and Co-operation in Nuclear Safety Matters, concluded on 6 December 1993 (see *Nuclear Law Bulletin* No. 54). The Arrangement has been renewed for a new period of five years.

Sweden-Ukraine

Agreement on Early Notification of Nuclear Accidents and on the Exchange of Information on Nuclear Facilities (1999)

This Agreement was signed by the Cabinet of Ministers of Ukraine and the Government of the Kingdom of Sweden in March 1999. It aims to implement the 1986 Convention on Early Notification of a Nuclear Accident.

This Agreement provides for early notification of nuclear accidents involving specified nuclear facilities or activities under the jurisdiction or control of either Contracting Party if a transboundary release of radioactive material occurs, if the release could be of significance for radiological safety of the other Party, or if abnormally high radiation values are registered within the territory of one of the Parties.

The Agreement also provides for exchange of information concerning the operating conditions of specific nuclear facilities.

Ukraine – United States

Extension of the Agreement on Non-proliferation of Nuclear Weapons from Ukraine (1999)

On 7 July 1999, the Ministry of Environmental Protection and Nuclear Safety of Ukraine and the Department of Defense of the United States signed an extension to the Agreement concerning Development of State Systems of Control, Accounting, and Physical Protection of Nuclear Materials to Promote the Prevention of Nuclear Weapons Proliferation from Ukraine, adopted on 18 December 1993. The extension entered into force with retroactive effect from 18 December 1998.

The Agreement aims to facilitate control, accounting, and physical protection of nuclear materials used for peaceful purposes in Ukraine in order to assist in the prevention of nuclear weapons proliferation. In order to fulfil this objective, the Agreement provides for the creation by Ukraine of a national system for the prevention of nuclear weapons proliferation and the supply by the Department of Defense of the United States to the Ukrainian State Committee on Nuclear and Radiation Safety of technical assistance in the form of equipment, property, supplies, training and services. The cost of the

assistance is limited to USD 7.5 million, which is to be financed by the US Department of Defense. The Agreement also defines the respective responsibilities of each Party.

The Agreement specifies the fields in which assistance is to be granted and provides details on its implementation.

The period of validity of this Agreement is extended until 31 December 2005.

MULTILATERAL AGREEMENTS

Status of Conventions in the Field of Nuclear Energy

1997 Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage

Morocco has ratified the 1997 Protocol to Amend the Vienna Convention since the last update in *Nuclear Law Bulletin* No. 63. Therefore, as of 4 November 1999, two states are party to this instrument: Morocco and Romania.

1997 Convention on Supplementary Compensation for Nuclear Damage

Morocco has ratified the 1997 Convention on Supplementary Compensation for Nuclear Damage since the last update in *Nuclear Law Bulletin* No. 63. Therefore, as of 4 November 1999, two states are party to this Convention, Morocco and Romania.

1997 Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

Belarus signed the Joint Convention and six countries, namely Croatia, Denmark, Morocco, Romania, Spain and Sweden have become Contracting Parties since the last update in *Nuclear Law Bulletin* No. 63. Therefore, as of 4 November 1999, there are 40 signatories and 13 parties to this Convention, as set out in the table below.

Status of signatures, ratifications, acceptances, approvals or accessions

State	Date of Signature		Date of Deposit of Instrument	
Argentina	19 December	1997		
Australia	13 November	1998		
Austria	17 September	1998		
Belarus	13 October	1999		
Belgium	08 December	1997		
Brazil	31 October	1997		
Bulgaria	22 September	1998		
Canada	07 May	1998	07 May	1998 (ratified)
Croatia	09 April	1998	10 May	1999 (ratified)
Czech Republic	30 September	1997	25 March	1999 (approved)
Denmark	09 February	1998	03 September	1999 (accepted)
Finland	02 October	1997		
France	29 September	1997		
Germany	01 October	1997	13 October	1998 (ratified)

Greece	09 February	1998		
Hungary	29 September	1997	02 June	1998 (ratified)
Indonesia	06 October	1997		
Ireland	01 October	1997		
Italy	26 January	1998		
Kazakhstan	29 September	1997		
Korea	29 September	1997		
Lebanon	30 September	1997		
Lithuania	30 September	1997		
Luxembourg	01 October	1997		
Morocco	29 September	1997	23 July	1999 (ratified)
Netherlands	10 March	1999		
Norway	29 September	1997	12 January	1998 (ratified)
Peru	04 June	1998		
Philippines	10 March	1998		
Poland	03 October	1997		
Romania	30 September	1997	06 September	1999 (ratified)
Russia	27 January	1999		
Slovakia	30 September	1997	06 October	1998 (ratified)
Slovenia	29 September	1997	25 February	1999 (ratified)
Spain	30 June	1998	11 May	1999 (ratified)
Sweden	29 September	1997	29 July	1999 (ratified)
Switzerland	29 September	1997		
Ukraine	29 September	1997		
United Kingdom of Great Britain and Northern Ireland	29 September	1997		
United States of America	29 September	1997		

1994 Convention on Nuclear Safety

Two states, namely Cyprus and Sri Lanka, have become Contracting Parties to this Convention since the last update in *Nuclear Law Bulletin* No. 63. Therefore, as of 4 November 1999, there are 52 parties to this Convention.

CHINESE TAIPEI

NUCLEAR DAMAGE COMPENSATION LAW*

Promulgated and effective on 26 July 1971
Amendment of Article 27 promulgated and effective on 6 May 1977
Amendments of the Law promulgated on 14 May 1997 and effective on 14 May 1998

Chapter I

GENERAL PROVISIONS

Article 1

This Law is enacted according to Article 29 of the Atomic Energy Law.

This Law shall apply to the compensation for nuclear damage resulting from the peaceful uses of atomic energy. Where this Law does not provide, the provisions of other laws shall apply.

Article 2

For the purposes of this Law "nuclear fuel" means material which is capable of producing energy by a self-sustaining chain process of nuclear fission.

Article 3

For the purposes of this Law "radioactive products or waste" means radioactive material produced, or material made radioactive by exposure to the radiation, in the production or utilization of nuclear fuel; but not including radioisotopes and the wastes thereof generated in the final process of fabrication and manufactured for scientific, medical science, agricultural, commercial or industrial use.

* Translation kindly prepared by LEE & LI, Attorneys-at-Law, Taipei, and approved by the Atomic Energy Commission.

Article 4

For the purposes of this Law “nuclear reactor” means any structure filled with nuclear fuel in such a proper arrangement that a controllable self-sustaining chain process of nuclear fission can occur therein.

Article 5

For the purposes of this Law “nuclear material” means:

1. nuclear fuel other than natural uranium and depleted uranium, capable of producing energy by a self-sustaining chain process of nuclear fission outside a nuclear reactor, either alone or in combination with some other material; and

2. radioactive products or waste.

Article 6

For the purposes of this Law “nuclear installation” means:

1. nuclear reactor, but not including any nuclear reactor used in air and sea transportation conveyances for producing power for propulsion or other purposes;

2. any installation producing nuclear material, including installation for re-process of spent nuclear fuel; and

3. any installation exclusively for the processing, storage or disposition of nuclear material.

Several nuclear installations belonging to one operator and located at the same site shall be considered as a single nuclear installation.

Article 7

For the purposes of this Law “operator”, in relation to a nuclear installation, means anyone designated or approved by the government as responsible for the operation of that installation.

Article 8

For the purposes of this Law “nuclear damage” means loss of life, personal injury or loss of property which arises out of or results from the radioactive or radiation compounded toxic, explosive or other hazardous properties of nuclear fuel or radioactive products or waste in, or of nuclear material coming from or sent to, a nuclear installation.

Article 9

For the purposes of this Law “nuclear incident” means any single occurrence or series of occurrences happened simultaneously or successively having the same origin which causes nuclear damage.

Article 10

Other laws shall be applied where the quantity of the nuclear fuel, radioactive product or waste is within a certain limit; the limit of the quantity shall be announced by the Atomic Energy Council of the Executive Yuan.

Chapter II

LIABILITIES FOR DAMAGE COMPENSATION

Article 11

When a nuclear incident occurs, the operator thereof shall be liable for compensation of the nuclear damages resulting therefrom.

Article 12

In case a nuclear incident is caused by nuclear material of a nuclear installation, the original operator shall be liable for damage compensation resulting therefrom under any one of the following conditions:

1. the liability for compensation has not been assumed by another nuclear installation operator under written agreement.

2. in the absence of such written agreement, before another nuclear installation operator has taken over or possessed the nuclear material.

3. where the nuclear material is intended to be used in a nuclear reactor with which a transportation conveyance is equipped for use of producing power for propulsion or for other purposes, before the person duly authorized to operate such reactor has taken charge of the nuclear material.

Article 13

Where a nuclear incident happened on the way the nuclear material is transported outbound this country, the nuclear installation operator transporting the said material shall be liable for compensation of the nuclear damage occurred within the territory of Chinese Taipei.

Article 14

The nuclear installation operator providing temporary storage of nuclear material shall not be liable for the nuclear damage involving the said nuclear material in temporary storage incidental to transport in case that another nuclear installation operator shall be liable for the nuclear damage according to the preceding two Articles.

Article 15

In case several operators are liable for the nuclear damage according to this Law, these operators shall be jointly and severally liable for the compensation thereof.

Article 16

In case the nuclear incident occurs during the transportation of nuclear material in one and the same transportation conveyance, or the nuclear material is temporarily stored in one and the same nuclear installation during transportation, the several operators shall be liable for compensation of the nuclear damage resulting therefrom.

Article 17

Where several nuclear installations of one and the same operator are involved in one nuclear incident, such operator shall be liable for compensation in respect of each nuclear installation involved.

Article 18

The operator of a nuclear installation shall, in accordance with this Law, be liable for nuclear damages arising from the occurrence or expansion of a nuclear incident regardless of whether it is caused intentionally or through negligence, except when the nuclear incident is caused directly by international armed conflicts, hostilities, domestic rebellion, or grave natural calamity.

Article 19

In case the nuclear installation operator can prove that the occurrence or expansion of the nuclear damage was caused by the victim's intentional act or negligence, the court may reduce or dispense with the compensation.

Article 20

All damages caused by a nuclear incident alone or in combination with other incidents in which the other damages can not be completely distinguished from the nuclear damage are to be deemed as nuclear damage caused by the nuclear incident.

Article 21

Other laws shall be applied where the nuclear installation operator is liable for compensation of nuclear damages to the following properties:

1. the nuclear installation itself or any property on the site of that installation which is used or to be used in connection with that installation.

2. transportation conveyance used for transporting nuclear material which caused a nuclear incident.

Article 22

The nuclear installation operator who follows the stipulated compensation of this Law has the right of recourse against any person other than another nuclear installation operator only under one of the following conditions:

1. having specific stipulations in written agreement;

2. the nuclear damage is caused by intentional acts of individuals, and the recourse can be asserted against the individuals with that intent.

Article 23

Any person other than the nuclear installation operator shall not be liable for nuclear damages except as provided in the preceding Article.

Chapter III

MAXIMUM AMOUNT AND GUARANTEE FOR LIABILITIES

Article 24

The liability of a nuclear installation operator for nuclear damages arising out of each single nuclear incident shall be limited to Four Billion Two Hundred Million Chinese Taipei Dollars (TWD 4 200 000 000).

The preceding maximum amount does not include interest and costs of litigation.

Article 25

A nuclear installation operator shall maintain liability insurance or financial guarantee sufficient to cover the maximum amount of nuclear damage compensation liability and may operate the nuclear installation or transport nuclear material only upon the approval from the Atomic Energy Council of the Executive Yuan.

The preceding stipulation is not applicable to the nuclear installations of the Central Government, provincial or municipal government and their research organizations.

In respect of operation of a nuclear installation or transportation of nuclear material, applications may be filed with the Atomic Energy Council of the Executive Yuan for reduction of the amount of liability insurance or financial guarantee within a certain limit; the said limit shall be stipulated by the Atomic Energy Council of the Executive Yuan.

Article 26

The insurer of liability insurance or the guarantor of the financial guarantee prescribed in the preceding Article shall not cease or terminate the said liability insurance or financial guarantee during

the term of the insurance or guarantee unless the Atomic Energy Council of the Executive Yuan is notified in writing two months in advance and has given approval therefor.

Liability insurance or financial guarantee for transportation of nuclear material shall not be ceased or terminated during the course of transportation.

Article 27

Should the amount received from the liability insurance or financial guarantee not suffice to cover the finalized nuclear damage compensation liability, the nation shall loan the balance to the nuclear installation operator to cover its complete liability; but only to the maximum amount prescribed in Article 24.

The nuclear installation operator shall indemnify the nation for the loan under the preceding paragraph.

Chapter IV

RIGHT TO CLAIM FOR DAMAGE COMPENSATION

Article 28

Claims of compensation for nuclear damage shall be extinguished if an action is not brought within three (3) years after knowledge of the damage and of the nuclear installation operator liable for the damage; however, the period shall in no case exceed ten (10) years from the date of the nuclear incident.

Article 29

Where the nuclear material causing a nuclear incident is stolen, lost, jettisoned or abandoned, the statute of limitations of the right to claim compensation shall be governed by the preceding Article. However, when making a claim for compensation against the original nuclear installation operator of the said nuclear material, the claim shall be made within twenty (20) years from the time the nuclear material is stolen, lost, jettisoned or abandoned.

Article 30

Any person who claims to have suffered nuclear damage and who has brought an action for compensation within the period applicable pursuant to the two preceding Articles may amend his/her claims to take into account any aggravation of the damage even if the statute of limitations has expired, provided that it is made before the closing of the oral argument in the first appeal.

Article 31

Any person suffering nuclear damage may claim directly for compensation against the liability insurer or financial guarantor of the operator if the operator is not able to compensate the nuclear damage.

Chapter V

SUPPLEMENTAL PROVISIONS

Article 32

After the occurrence of a nuclear incident, the Atomic Energy Council of the Executive Yuan may establish a Committee on Nuclear Accident Investigation and Evaluation to perform the duties and exercise the rights as follows:

1. determination of a nuclear incident and investigation of the causes thereof;

2. investigation and evaluation of the nuclear damage;

3. recommendation on compensation, relief and rehabilitation measures for the nuclear incident; and

4. recommendation on improvements of safety protections of nuclear installation.

Reports of the aforementioned investigation, evaluation, and recommendation shall be prepared for announcement by public notice.

The rules governing the establishment of the Committee on Nuclear Accident Investigation and Evaluation shall be stipulated by the Atomic Energy Council of the Executive Yuan.

Article 33

Where the amount of nuclear damage exceeds or may exceed the limit of the nuclear installation operator's liability, the priority of compensation shall be given to loss of life and personal injury, and ten percent (10%) of the total amount for compensation shall be reserved for later discovered nuclear damage.

Where the victims of a nuclear incident seek compensation by way of a judicial proceeding, the court may, in accordance with the degrees of damages and the number of victims, take into account the investigation reports and compensation recommendations prepared by the Committee on Nuclear Accident Investigation and Evaluation to make appropriate distributions.

Article 34

After the occurrence of a serious nuclear incident, the nation shall take necessary relief and rehabilitation measures.

Article 35

Where the victim is a foreign national, this Law shall be applied on a reciprocal basis.

Article 36

The rules implementing this Law shall be stipulated by the Atomic Energy Council of the Executive Yuan.

Article 37

This Law becomes effective on the day of promulgation.

The revised provisions of this Law shall come into force one year after being promulgated.

ENFORCEMENT RULES
OF
NUCLEAR DAMAGE COMPENSATION LAW

Promulgated on 25 March 1998
by the Atomic Energy Council of the Executive Yuan
(87)-Hui-Zong-Zi-5370

Article 1

These Enforcement Rules are enacted pursuant to Article 36 of the Nuclear Damage Compensation Law (hereinafter referred to as the "Law").

Article 2

The term "the final process of fabrication" as mentioned in the proviso of Article 3 of the Law refers to the process of fabricating and processing radioisotopes after removal thereof from a nuclear reactor.

Article 3

The term "radiation compounded toxic property" as mentioned in Article 8 of the Law refers to the physiological symptoms and the successively occurring symptoms jointly caused by radiation injury and chemical toxic injury resulted from exposure to, intake or inhale of radioactive material by the human body.

Article 4

The financial guarantee stipulated in Chapter III of the Law refers to the following guarantees deposited in a designated account established by a nuclear installation operator at any bank or at a bank designated by the government treasury:

1. cash;

2. government bond, treasury note;

3. cashier's check, bank guaranteed check or certificate of deposit.

The designated account in the preceding paragraph shall be jointly established by the nuclear installation operator and the Atomic Energy Council of the Executive Yuan.

Article 5

With respect to the yields accrued on the guarantee deposited by a nuclear installation operator in accordance with the first paragraph of the preceding Article, the nuclear installation operator may, after the approval of the Atomic Energy Council of the Executive Yuan, withdraw the excess of the guarantee including the yields over the amount required to be deposited.

Article 6

When reporting its liability insurance or financial guarantee in accordance with the first paragraph of Article 25 of the Law, the nuclear installation operator shall submit the following information to the Atomic Energy Council of the Executive Yuan for approval:

1. name and address of the applicant; in the event of a juridical person, the name and address of the juridical person and the name of its representative;

2. type of nuclear installation;

3. name and address of nuclear installation

4. with respect to the operation of a nuclear reactor, the thermal power output shall be specified;

5. for an installation producing nuclear materials, the type and quantity shall be specified;

6. for the transportation of nuclear materials, the type, usage and quantity shall be specified;

7. for an installation engaged in processing, storing or final disposition, the type and quantity shall be specified;

8. the anticipated commencing date and the anticipated completion date for the operation of nuclear installation or the transportation of nuclear materials;

9. the means of liability insurance or financial guarantee adopted for the performance of nuclear damage compensation liability.

With respect to sub-paragraph 9 of the preceding paragraph, evidential documents shall be submitted as well.

Article 7

In respect of operation of a nuclear installation or transportation of nuclear materials, the rules governing the reduced amount for liability insurance or financial guarantee in accordance with the third paragraph of Article 25 of the Law are as follows:

1. For nuclear reactor whose thermal power is greater than one hundred kilowatts (100 kw) but less than ten thousand kilowatts (10 000 kw), including the transportation, processing, storage or disposition of nuclear materials accompanying such nuclear reactor on the site of the nuclear installation, the amount is reduced to Eight Hundred Forty Million Chinese Taipei Dollars (TWD 840 000 000).

2. For nuclear reactor whose thermal power is less than one hundred kilowatts (100 kw), including the transportation, processing, storage or disposition of nuclear materials accompanying such nuclear reactor on the site of the nuclear installation, the amount is reduced to Two Hundred Ten Million Chinese Taipei Dollars (TWD 210 000 000).

3. For an installation producing nuclear materials, the amount is reduced to Eight Hundred Forty Million Chinese Taipei Dollars (TWD 840 000 000).

4. For an installation exclusively for the processing, storage or disposition of nuclear materials, the amount is reduced to Two Hundred Ten Million Chinese Taipei Dollars (TWD 210 000 000).

5. For an installation disposing spent nuclear fuel or the waste produced during the reprocessing of the spent nuclear fuel, the amount is reduced to Eight Hundred Forty Million Chinese Taipei Dollars (TWD 840 000 000).

6. For the transportation of nuclear fuel where the quantity of each transport is less than ten thousand kilograms (10 000 kg), the amount is reduced to Two Hundred Ten Million Chinese Taipei Dollars (TWD 210 000 000).

7. For the transportation of nuclear fuel where the quantity of each transport is at ten thousand kilograms (10 000 kg) or more, the amount is reduced to Four Hundred Twenty Million Chinese Taipei Dollars (TWD 420 000 000).

8. For the transportation of radioactive product or waste where the quantity of each transport is less than ten thousand (10 000) times of a certain limited quantity, the amount is reduced to Two Hundred Ten Million Chinese Taipei Dollars (TWD 210 000 000).

9. For the transportation of radioactive product or waste where the quantity of each transport is at ten thousand (10 000) times or more of a certain limited quantity, the amount is reduced to Eight Hundred Forty Million Chinese Taipei Dollars (TWD 840 000 000).

With respect to installations producing nuclear materials as stipulated in sub-paragraph 3 of the preceding paragraph, installations for reprocessing of spent nuclear fuel are excluded.

Article 8

Where several nuclear installations belonging to one and the same nuclear installation operator and located at the same site, the amount of liability insurance or financial guarantee the operator shall maintain shall be the highest amount among those required of such several nuclear installations.

Article 9

In order to ensure that a nuclear installation operator maintains liability insurance or financial guarantee sufficient to cover the maximum amount of nuclear damage compensation liability, the Atomic Energy Council of the Executive Yuan may, where necessary, examine the above at any time.

In the event that the result of examination as stipulated in the preceding paragraph reveals that the coverage is insufficient to cover the maximum amount of nuclear damage compensation liability, the Atomic Energy Council of the Executive Yuan may order the nuclear installation operator to make up for the difference within a limited period of time.

Article 10

When the insurer of liability insurance or the guarantor of financial guarantee notifies the Atomic Energy Council of the Executive Yuan in writing to cease or terminate said liability insurance or financial guarantee in accordance with Article 26 of the Law, the following information shall be submitted:

1. name and address of the applicant; in the event of a juridical person, the name and address of the juridical person and the name of its representative;

2. in the case of liability insurance, a copy of the liability insurance agreement;

3. in the case of financial guarantee, the account number of the designated account established at any bank or at a bank designated by the government treasury;

4. the reasons for ceasing or terminating the liability insurance or financial guarantee.

Article 11

In the event of any one of the following circumstances, the nuclear installation operator may, with the approval of the Atomic Energy Council of the Executive Yuan, cease or terminate the financial guarantee it maintains in accordance with Article 4:

1. completion of compensation for nuclear damage and no possibility whatsoever of the reoccurrence of any nuclear incident or nuclear damage;

2. completion of transportation of nuclear materials;

3. completion of decommissioning of nuclear installation or exemption from supervision/control of such nuclear installation.

Article 12

These Rules shall come into force on 14 May 1998.

ANNOUNCEMENT OF THE ATOMIC ENERGY COUNCIL OF THE EXECUTIVE YUAN

Promulgated on 4 March 1998
(87)-Hui-Zong-Zi-3537

Subject: Where the quantity of the nuclear fuel, radioactive product or waste is within a certain limit, the Nuclear Damage Compensation Law shall not apply.

Authority: Article 10 of the Nuclear Damage Compensation Law

Announced matters:

1. Announcements for the limited amount of the following nuclear fuel:

   (1) For uranium and its compound, the ratio of uranium-235 to uranium-238 exceeds the natural mixing ratio but less than five percent (5%), and for materials containing one or two or more of the above items, the content of uranium-235 is limited to 2 000 g.

   (2) For uranium and its compound, the ratio of uranium-235 to uranium-238 exceeds five percent (5%), and for materials containing one or two or more of the above items, the content of uranium-235 is limited to 800 g.

   (3) For plutonium and its compound, the weight of plutonium is limited to 500 g.

   (4) For uranium-233 and its compound, the weight of uranium-233 is limited to 500 g.

2. The announced limit for radioactive product or waste is with an activity of 3.7×10^{10} Becquerel (one Curie).

BIBLIOGRAPHY AND NEWS BRIEFS

BIBLIOGRAPHY

International Nuclear Law Association

***Nuclear Inter Jura 1999 Proceedings,* Washington, 1999 452 pages**

The International Nuclear Law Association (INLA) held its 14th Congress in Washington (United States) from 24 to 29 October 1999. On that occasion, the written papers submitted in advance by experts from over twenty countries and international organisations and, presented before the Congress were distributed in the form of Proceedings. As its table of contents indicates, the presentations cover the six Working Groups, namely Safety and Regulation; Liability and Cover, International Trade/Non-Proliferation; Radiological Protection; Radioactive Waste Management and Radioisotopes. Two special sessions were devoted to the Impact of Privatisation and Deregulation on the Future of Nuclear Power, and Nuclear Law in the 21st Century, respectively. A paper copy of these Proceedings, or a revised version of this publication on CD-Rom can be obtained from INLA Headquarters, Square de Meeûs 29, 1000 Brussels (Belgium), for a fee, upon request.

***Die Zweckbestimmungen des Atomrechts – The Objectives of Atomic Energy Law,* Nomos Verlagsgesellschaft, Baden Baden, 1999, 326 pages**

This publication contains the papers presented at the 7th Regional Meeting of the German branch of INLA, held in Baden Baden on 24 and 25 September 1998. The theme of this Meeting was "The Objectives of Atomic Energy Law". The three working sessions explored the concepts of atomic energy law as a means to preventing damage, a means to peace-keeping and a means to economic development, respectively. More than 150 participants from economic, legal, scientific and administrative backgrounds attended this meeting, under the chairmanship of Dr. Norbert Pelzer.

Belgium

***Edition No. 4-5 of the Studia Diplomatica Review on "Nuclear-Free Zones",* Institut royal des relations internationales, Brussels, 1997, 252 pages**

No. 4-5 of the Review entitled *Studia Diplomatica*, published by the Royal Institute for International Relations, consists of a study carried out by Professor Yakemtchouk on nuclear-free zones. This publication exists only in French.

Having examined the problem of nuclear-free zones and the reasons behind their creation, this study concentrates on the five regional nuclear-free zones, namely those situated in the Antarctic, Latin America, the South Pacific, South-East Asia and Africa. It then describes the partial nuclear-free zones in Europe, as well as ongoing projects concerning the Middle East, South-East Asia, Central Asia and Central and Eastern Europe.

This study reproduces for reference purposes the texts of the legal instruments establishing each of these five nuclear-free zones.

France

***Conventions de protection de l'environnement. Secrétariats, conférences des parties, comités d'experts,* Presses Universitaires de Limoges, Limoges, 1999, 502 pages**

This French-language publication, entitled *Conventions on the protection of the environment. Secretariats, Party Conferences, Expert Committees* was compiled for the Ministry of the Environment by the members of the Centre for Interdisciplinary Research in Environmental, Territorial Development and Planning Law of Limoges. It is based upon the implementing bodies**,** such as the conferences of the parties, secretariats or expert committees established by the international conventions on environmental protection. Opening with studies on the conventions themselves, this publication demonstrates the general evolution of these institutions and reveals proposals to strengthen the application of the conventions.

This book is divided into five parts, the first of which, "Productivity, Sustainable Development and the Institutions of the Environmental Protection Conventions" examines the general context (ecological, economical, scientific and political) and the specific framework (legal and institutional) surrounding the establishment of these implementing bodies. The second part, "Institutional Convergence and Diversity", provides details on the institutions set up by the various conventions governing the protection of air and water, hazardous waste, nuclear safety and nature conservation. The third part, "Enlightenment and limits of comparison with institutions from other fields of public international law", is devoted first to the experiences of the international system of control over breaches of human rights and secondly, to the control and different approaches established by disarmament and armament control treaties. Part Four, "Advantages and Disadvantages of the Institutions of the Environmental Protection Conventions", examines the application of these conventions and identifies the deficiencies in their institutions, proposing guidelines for their possible reform. Finally, the conclusion "Proposals for Reform and Institutional Change" provides an assessment of the implementing bodies of the environmental protection conventions.

United States

***A Guide to Nuclear Export Controls,* Proliferation Data Services, Burke (Virginia), 1999**

The second edition of this Guide to Nuclear Export Controls has been published by the Proliferation Data Services company.

This Guide is made up of three parts, devoted respectively to a historical overview of the past, present and future of nuclear export controls, the chronology of events which took place in this field between 1970 and 1999, and finally the process of evaluating nuclear-related exports.

This Guide is also accompanied by annexes and numerous documents concerning, in particular, multilateral nuclear export controls, including the Nuclear Suppliers Group Guidelines and the US system of nuclear exports controls.

NEWSBRIEFS

Uruguay

Uruguayan Radiation Protection Association

The Uruguayan Radiation Protection Association was established on 29 April 1998. It aims to promote the public's knowledge of radiation protection, and is responsible for the adoption and enforcement of legislative and regulatory instruments on radiation protection.

The Association, which is comprised of 24 members, carries out, *inter alia*, the following activities:

- international research on radiation protection, in particular radiological risks;
- carrying out projects on waste management;
- disseminating information related to radiation protection; and
- organisation of seminars on radiation protection.

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(671999 64 1 P) ISBN 92-64-16175-9 - No. 51059 1999

THE REPUBLIC OF LITHUANIA

Law on Radiation Protection*

adopted on 12 January 1999

No. VIII-1019

Chapter I

PURPOSE AND DEFINITIONS

Article 1

Purpose

1. This Law shall regulate relations of legal entities, enterprises without legal personality, and natural persons arising from activities involving sources of ionising radiation and radioactive waste management. This Law shall establish the legal basis for radiation protection in order to safeguard people and the environment from the harmful effects of ionising radiation.

2. This Law shall regulate relations arising during the use of nuclear energy in as much as they are not regulated by the provisions of the Law on Nuclear Energy.**

Article 2

Definitions

1. **Exposure** – the process during which a human or the environment is exposed to ionising radiation.

2. **Worker whose work involves sources of ionising radiation (hereinafter "worker")** – a person working under a contract of employment with sources of ionising radiation or subject

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* Translation kindly provided by the Lithuanian authorities.

** Note by the NEA Secretariat: Law on Nuclear Energy of 14 November 1996 (No. I 1613). The text of this Law is reproduced in the Supplement to *Nuclear Law Bulletin* No. 60.

to their effect, who is exposed to doses above the limits prescribed for members of the population.

3. **Population** – persons, other than workers, pupils and students who use sources of ionising radiation during their studies, who are exposed to radiation for their health care, and those who voluntarily help patients or participate in programmes of medical and biomedical research.

4. **Ionising radiation** – radiation capable of producing ion pairs with differing charges in the biological environment.

5. **Ionising radiation generators** – devices and their components which do not contain any radioactive substances but which are capable of generating ionising radiation owing to their technical properties.

6. **Source of ionising radiation** – a device, a radioactive substance, a facility, a product or a commodity producing or capable of producing ionising radiation.

7. **Permit** – a document granting a right to import, export or carry in transit radioactive substances pursuant to the conditions and requirements stipulated in this Law and other legislation.

8. **Licence** – an authorisation to engage in activities specified in the licence pursuant to the conditions and requirements stipulated in this Law and other legislation.

9. **Medical exposure** – exposure incurred by patients as part of their health care during medical and biomedical research, and persons, other than workers, who voluntarily help patients.

10. **Natural radiation** – ionising radiation including cosmic radiation and radiation from naturally-occurring radionuclides.

11. **Clearance levels** – established values at or below which requirements of legal acts regulating radiation protection are not applied and a licence is not required.

12. **Radiological accident** – a situation resulting from equipment failure, operating errors or other reasons, the consequences or potential consequences of which require the implementation of radiation protection measures.

13. **Radiation protection** – a sum of legal, technical, technological, construction, hygienic occupational safety and environmental protection norms, rules and measures guaranteeing the protection of people and the environment from the harmful effects of ionising radiation.

14. **Radioactive waste** – radioactive substances for which no further use is intended or possible.

15. **Radioactive substance** – any substance having one or more nuclides whose activity is above the prescribed limit.

16. **Radioactive contamination** – contamination of any material, surface or the environment and humans with radioactive substances. Radioactive contamination of a human is both external contamination of the skin and internal contamination.

17. **State radiation protection expert examination** – analysis of radiation protection data and its projected development carried out by state institutions authorised pursuant to this Law, other Laws of the Republic of Lithuania and resolutions of the Government.

18. **Practices with sources of ionising radiation (hereinafter "practices")** – activities of legal entities and enterprises without a legal personality using sources of ionising radiation or radioactive waste, causing additional radiation exposure of the staff and the population or increasing the number of people exposed or the likelihood of their exposure.

Article 3

Basic Principles of Radiation Protection

All practices shall be authorised and conducted in accordance with the following basic principles of radiation protection:

(1) the principle of justification of the operation of sources of ionising radiation – the economic, social and other benefits yielded by all types of practices involving operation of sources of ionising radiation to individuals or society must outweigh the detriment radiation causes to human health and the environment;

(2) the principle of optimisation – any kind of exposure of individuals and society must be as low as reasonably achievable, economic and social factors being taken into account;

(3) the principle of limitation – the sum total of doses resulting from all types of practices may not exceed the fixed value, with the exception of a personal dose received by a patient for health care purposes or an individual (other than as part of his occupation) voluntarily helping a patient or participating in medical and biomedical research.

Chapter II

STATE MANAGEMENT OF RADIATION PROTECTION

Article 4

Competence of the Government in the Field of State Management of Radiation Protection

In implementing the state policy in the field of management of radiation protection the Government shall:

(1) approve state programmes of radiation protection;

(2) regulate living and economic conditions under an emergency regime in the territories affected by a radiological accident;

(3) establish the State Register of Sources of Ionising Radiation and Exposure of Workers and approve its regulations;

(4) establish the responsibilities of the ministries and other state agencies in the sphere of management of radiation protection;

(5) perform other functions in the sphere of state management of ionising radiation established by other laws and legal acts.

Article 5

Competence of the Mayor of a District (Town) Municipality in the Sphere of State Management of Radiation Protection

Radiation protection shall be a function delegated to the municipality by the state with the mayor responsible for its exercise. The mayor of a district (town) municipality shall:

(1) voice the opinion on behalf of the municipality in adopting decisions on the construction, reconstruction or decommissioning of facilities using or intending to use sources of ionising radiation;

(2) in the manner prescribed by the laws and other legal acts of the Republic of Lithuania, provide information to the public about radiological accidents, contamination by radioactive substances which may affect or which have affected the environment, the human health and life, and measures undertaken with a view to radiation protection;

(3) develop plans for radiation protection of people and containment of radiological accidents and implement them in the event of a radiological accident;

(4) perform other functions of the state management of radiation protection pursuant to other laws and legal acts.

Article 6

Competence of the Ministry of Health in the Management of Radiation Protection

The Ministry of Health shall perform the following functions in the management of radiation protection:

(1) establish radiation protection standards for the population and for its individual groups (workers, pupils, students, pregnant women, etc.) and organise supervision and control of their compliance;

(2) establish clearance levels;

(3) perform other functions of state management of radiation protection pursuant to other laws and legal acts.

Article 7

The Radiation Protection Centre and its Competence in the Field of State Management of Radiation Protection

1. The Radiation Protection Centre shall be a body co-ordinating the activities of executive and other bodies of public administration and local government in the sphere of radiation protection, exercising state supervision and control of radiation protection, monitoring and expert examination of public exposure. The Radiation Protection Centre shall be established and its regulations shall be approved by the Ministry of Health. The Radiation Protection Centre is a legal entity funded from the state budget.

2. The Radiation Protection Centre shall:

(1) draft laws and other legal acts on radiation protection;

(2) in accordance with the procedure established by the Government, issue, register, suspend, renew or revoke licences for conducting practices specified in paragraph 1 of Article 8 of this Law;

(3) supervise and control compliance of legal persons and enterprises without the status of a legal personality with the requirements laid down in this Law, licences, and legal acts on radioactive safety; it shall hold them liable in accordance with law for breach of these requirements;

(4) organise and conduct monitoring of contamination by radionuclides of air, drinking water, foodstuffs and their raw materials, building materials and their products as well as other objects which may result in the exposure of humans; it shall take and obtain necessary samples in accordance with the procedure set forth in laws and other legal acts;

(5) prepare, within the limits of its competence, reviews of radiation safety and make proposals relating to radiation safety to the executive bodies of public administration, control institutions and local government; provide information to the public;

(6) organise and carry out monitoring of individual exposure of the population, workers and their separate risk groups under the normal conditions and in the event of radiological accidents, shall undertake studies and assessment of the impact of ionising radiation on humans;

(7) organise and conduct, within the limits of its competence, study and state expert examination of radiation protection;

(8) carry out study of radiological accidents, forecast their consequences and make proposals for their prevention and containment;

(9) co-operate with international and national organisations in the field of radiation protection;

(10) keep the State Register of Sources of Ionising Radiation and Exposure of the Workers;

(11) perform other functions stipulated in other laws and legal acts.

Chapter III

TERMS AND CONDITIONS OF LICENCING IN THE FIELD OF RADIATION PROTECTION

Article 8

Licensing and Authorisation of Practices, Prohibited Practices

1. It shall be prohibited to produce, operate, market, store, assemble, maintain, repair, recycle, and transport sources of ionising radiation and handle (collect, sort, treat, keep, recycle, transport, store and decontaminate) radioactive waste without a licence issued by the Radiation Protection Centre in cases other than those set forth in paragraph 2 of this Article.

2. The licence specified in paragraph 1 of this Article shall not be required:

   (1) for the conduct of practices involving sources of ionising radiation at clearance levels;

   (2) for transportation and storage of generators of ionising radiation.

3. It shall be prohibited to import, export, carry in transit or transport radioactive substances in the Republic of Lithuania without an authorisation granted in the manner prescribed by the Government or a body designated by it.

4. The procedure for the import, transit and export of radioactive substances in the category of controlled commodities shall be regulated by the Law on the Import, Transit and Export of Strategic Commodities and Technologies.

5. It shall be prohibited to add intentionally radioactive substances to foodstuffs, toys, jewellery, cosmetics and to market, import and export such products.

6. Legal and natural persons or enterprises without legal personality which violate requirements set forth in paragraph 1 of this Article shall be held liable under the laws of the Republic of Lithuania.

Article 9

Institutions Issuing Licences and Permits

1. Licences for practices specified in paragraph 1 of Article 8 of this Law, other than licences issued by state institutions listed in the Law on Nuclear Energy, shall be issued, registered, suspended, renewed and revoked by the Radiation Protection Centre.

2. Permits for the import, export, transit or transportation in the Republic of Lithuania of radioactive substances intended for individual and public health care institutions, enterprises, research and educational institutions as well as institutions of public administration and local government shall be issued by the Ministry of the Environment after consultation with the

Radiation Protection Centre, and in all other cases – by the Government upon the advice of the Ministry of the Environment.

Chapter IV

REQUIREMENTS FOR RADIATION PROTECTION

Article 10

Responsibilities of a Licensed Legal Entity or a Licensed Enterprise without Legal Personality

A legal entity or an enterprise without legal personality licensed to conduct practices specified in paragraph 1 of Article 8 of this Law and conducting activities specified in the licence must:

(1) ensure registration of the sources of ionising radiation, their safety and safe operation and duly notify, in accordance with the procedure stipulated by legal acts, the State Register of Sources of Ionising Radiation and Exposure of Workers of any sources in his possession;

(2) minimise the exposure of workers;

(3) if the sites where practices are conducted are visited by members of the population, workers of other enterprises or institutions or organisations which are temporarily working there, ensure radiation protection of the said persons in accordance with the requirements of this Law and other legal acts relating to radiation protection;

(4) in order to achieve compliance with the requirements of this Law and other legal acts relating to radiation protection and to supervise their enforcement, appoint qualified competent persons or establish units of radiation protection;

(5) ensure that workers hold the relevant qualifications;

(6) carry out exposure monitoring of workers and their workplaces in accordance with the procedure established by the Radiation Protection Centre;

(7) in the manner prescribed by legal acts, register workers and submit the data to the State Register of Sources of Ionising Radiation and Exposure of Workers;

(8) on its own initiative or at the request of the executive bodies of public administration, institutions of control and local government, discontinue practices which do not comply with the requirements of radiation protection;

(9) in accordance with the procedure established by the laws and other legal acts of the Republic of Lithuania, dispose of sources of ionising radiation that are unsuitable for use or are no longer in use;

(10) in accordance with the procedure established by the Government or an institution designated by it, conduct monitoring of the impact on the environment;

(11) upon request, make available to the Radiation Protection Centre objective information about the conditions in which practices are conducted, and on products manufactured in, imported into, marketed in or exported from the Republic of Lithuania which emit ionising radiation;

(12) take preventive measures against radiological accidents, inform the population and the executive bodies of public administration, control institutions and local government of the Republic of Lithuania in a timely and detailed manner about the risks associated with the practices; in the event of a radiological accident, take actions and measures for the containment of causes hazardous to human health and the environment and elimination of the consequences; in accordance with the procedure set forth in this Law and other laws, compensate for the damage to human health and the environment resulting from breach of the regulations of radiation protection committed by a licensed legal entity or an enterprise without legal personality;

(13) in accordance with the procedure prescribed by legal acts, label the sources of ionising radiation and their containers, and duly provide information to the consumers about protection against ionising radiation;

(14) in accordance with the manner prescribed by this Law and other legal acts, those authorised to market or transfer for use sources of ionising radiation must ascertain that a legal entity or an enterprise without legal personality to whom those sources of ionising radiation are being sold or transferred, are in possession of a licence to use them;

(15) perform other duties set forth in other laws and legal acts.

Article 11

Verification of Compliance with Radiation Protection Requirements

1. Sources of ionising radiation, radiation protection equipment, other devices and substances that may cause additional exposure of the population, as well as products containing sources of ionising radiation may be sold or used subject to the verification of compliance with radiation protection requirements.

2. Compliance of sources of ionising radiation, radiation protection equipment and other devices and substances likely to cause additional exposure of the population as well as products containing sources of ionising radiation with the radiation protection requirements shall be controlled by the Radiation Protection Centre in accordance with the procedure established by the Ministry of Health. Where the sources of ionising radiation, radiation protection equipment and other devices, substances and products containing sources of ionising radiation may have additional effects on the environment, verification of compliance shall be carried out by the Radiation Protection Centre together with the Ministry of the Environment.

Article 12

Responsibilities of Workers

Workers must use adequate protective equipment and undertake all measures to protect themselves and other persons or the environment from the harmful effects of ionising radiation.

Article 13

Restrictions on Adolescents, Pregnant and Nursing Women Concerning Work Involving Sources of Ionising Radiation

1. Work involving sources of ionising radiation may be performed by people who are over 18 years of age.

2. Persons in the age group of 16 to 18 may perform work with sources of ionising radiation only for the purposes of professional training and not exceeding the limits of exposure established by the Ministry of Health.

3. The employer must provide a pregnant female worker with such work so as to ensure that the exposure of the foetus is not above the exposure levels as required for the population in accordance with the procedure set forth in the Law on Labour Protection and the Law on the Employment Contract.

4. The employer must provide a nursing female worker with such work so as to avert the risk of Radiation contamination of the organism in accordance with the procedure set forth the Law on Labour Protection and the Law on the Employment Contract.

Article 14

Workers' Health Surveillance

1. Workers are subject to a pre-employment medical examination and periodic reviews of health. Persons may be employed for work involving ionising radiation only subject to a review of health in accordance with the procedure determined by the Ministry of Health and a conclusion of a medical commission stating that according to the condition of their health they are fit for that kind of work.

2. When a worker has been found to have symptoms of a disease related to the effects of ionising radiation or it has been established or there are grounds to suspect that the dose limits have been exceeded, before the causes and circumstances of the disease or increased exposure are established and the Radiation Protection Centre gives permission for the worker to continue his work, the employer must provide the worker with alternative work, *i.e.* not practices involving sources of ionising radiation, in accordance with the procedure set forth in the Law on the Employment Contract and the Law on Labour Protection.

3. It shall be forbidden to be engaged in work with sources of ionising radiation for those persons who for health reasons cannot be engaged in such work.

Article 15

Compulsory Training of Workers and Officers

1. In the Republic of Lithuania the following persons must undergo training in radiation protection:

   (1) workers of enterprises, institutions and organisations, engaged in work involving sources of ionising radiation;

   (2) officers of state and local authorities working in the field of emergency management.

2. Employers must organise at their own expense training of the workers specified in paragraph 1 of this Article, and the executive bodies of public administration, control and local government institutions – training of the officers. The frequency and procedure of training and assessment of knowledge of the workers listed in item 1, paragraph 1 of this Article shall be determined by the Ministry of Health, and of the officers listed in item 2, paragraph 1 of this Article – by the Department of Civil Security under the Ministry of National Defence.

3. Employers must provide workers with information relating to radiation protection prior to conclusion of the contract of employment, when transferring them to another work involving sources of ionising radiation, when changing work (production) processes, technologies, working conditions involving sources of ionising radiation also when standards, norms, regulations and instructions are being revised.

4. Employers are prohibited from appointing workers to be engaged in work involving sources of ionising radiation if they have not completed a compulsory training course or have not been provided information about radiation protection.

Article 16

Notification of Foreign Countries

The extent and procedure of notification of foreign countries about radiation protection in the Republic of Lithuania shall be established by international agreements and other legal acts.

Chapter V

RADIOACTIVE WASTE AND GENERATORS OF IONISING RADIATION NO LONGER IN USE

Article 17

Radioactive Waste

Radioactive waste must be collected, sorted, treated, handled, recycled, transported, stored, decontaminated, disposed or discharged into the environment pursuant to the laws and other legal acts of the Republic of Lithuania.

Article 18

Decommissioning of Ionising Radiation Generators

1. The procedure for decommissioning of ionising radiation generators shall be established by the Ministry of Health or a body designated by it.

2. A legal person or an enterprise without the status of a legal personality in possession of a licence to engage in activities specified in paragraph 1 of Article 8 of this Law must ensure that generators of ionising radiation after their decommissioning pose no health risks to the population.

Chapter VI

CONSTRAINTS ON EXPOSURE FROM FOODSTUFFS

Article 19

State Expert Examination and Control of Radioactive Contamination of Foodstuffs, Feedingstuffs, Drinking Water and Soil

1. The maximum permitted levels of radioactive contamination of foodstuffs, drinking water and feedingstuffs and the procedure for state expert examination and control of contamination shall be established by the Ministry of Health or an authority appointed by it.

2. The maximum permitted levels of radioactive contamination of soil, and the procedure for state expert examination and control of contamination shall be established by the Ministry of the Environment in conjunction with the Ministry of Health.

3. It shall be prohibited to produce, import, export, carry in transit, process and market in the Republic of Lithuania raw materials for food, foodstuffs, drinking water and materials coming into contact with them that do not comply with radiation protection requirements.

Chapter VII

CONSTRAINTS ON NATURAL RADIATION EXPOSURE

Article 20

Natural Ionising Radiation and its Permitted Levels

1. Natural exposure of members of the population and workers caused by natural radiation in buildings, workplaces and the environment shall be regulated by the Ministry of Health.

2. The procedure for measuring natural radiation in buildings and workplaces and for processing the data shall be established by the Ministry of Health; for natural radiation in the environment, it will be established by the Ministry of the Environment.

Article 21

Natural Radionuclides in Building Materials and Products

1. A list of certified building materials and products which must be tested radiologically, and the obligatory norms of permissible contamination shall be established by the Ministry of Health in conjunction with the Ministry of the Environment.

2. The Ministry of Health shall organise selective testing of radon volume activity in buildings and workplaces.

Chapter VIII

RADIATION PROTECTION REQUIREMENTS FOR MEDICAL EXPOSURE

Article 22

Radiation Protection Requirements for Medical Exposure

1. A legal person or an enterprise without legal personality engaged in practices that result in exposure must make appropriate arrangements to ensure that the equipment, materials, and additional measures are in compliance with the radiation protection requirements, that the staff have adequate qualifications, that appropriate quality assurance programmes are developed and implemented, and that the exposure of patients is as low as reasonably achievable.

2. The sources of ionising radiation may be used for health care of an individual or in medical, biomedical research with humans only in such cases when the patient or the person under investigation receives prior information about the aims of the use of sources of ionising radiation and its possible health effects and gives his consent to undergo investigation or treatment with the help of the sources of ionising radiation. Medical and biomedical research

involving sources of ionising radiation with humans is subject to a prior authorisation from the Medical Ethics Committee of Lithuania after consultation with the Radiation Protection Centre.

3. The procedure for screening, diagnosis and therapy involving medical exposure shall be established by the Ministry of Health.

4. The patient has the right to refuse procedures involving medical exposure.

Chapter IX

LIABILITY

Article 23

Liability for Breach of Legal Acts Regulating Radiation Protection Requirements

In the case of breach of legal acts regulating radiation protection, legal entities and natural persons, as well as enterprises without legal personality shall be held liable in the manner stipulated by the laws of the Republic of Lithuania.

Article 24

Principles of Entry into International Agreements or their Individual Provisions relating to Radiation Protection Issues between the Republic of Lithuania and Foreign Countries

1. International agreements establishing relations with regard to radiation protection in the Republic of Lithuania shall be entered into in accordance with the principles and norms of international law and the law of the Republic of Lithuania regulating conclusion of international agreements.

2. Authorised representatives of the Ministry of the Environment, the Department of Civil Security under the Ministry of National Defence, the Radiation Protection Centre, the State Atomic Energy Safety Inspectorate and the Ministry of the Interior shall take part in the preparation of draft international agreements or their individual provisions relating to state radiation protection issues.

3. Where international agreements to which the Republic of Lithuania is a party have provisions different from this Law, the provisions of international agreements shall prevail.

Chapter X

FINAL PROVISIONS

Article 25

Entry into Force

The Law on Radiation Protection shall enter into force on 1 April 1999.

Article 26

Assignments for the Government of the Republic of Lithuania

1. By 1 April 1999, the Government shall:

   (1) approve the procedure for licensing practices involving sources of ionising radiation;

   (2) submit to the Seimas (Parliament) draft laws on the amendment of the Code of Administrative Offences, the Law on Nuclear Energy, the Law on Environmental Protection, and the Law on Enterprises;

   (3) establish the State Register of Sources of Ionising Radiation and of Exposure of Workers and approve its regulations.

2. By 1 August 1999, the Government shall approve the state programme of radiation protection.

Article 27

Assignments for the Ministry of Health

By 1 April 1999, the Ministry of Health shall:

(1) in conjunction with the State Atomic Energy Safety Inspectorate, the Customs Department under the Ministry of Finance of the Republic of Lithuania establish the procedure for providing information about nuclear and radioactive substances carried across the state border of Lithuania:

(2) establish the procedure for decommissioning generators of ionising radiation;

(3) establish the procedure of verification of compliance of the sources of ionising radiation, other equipment and materials likely to cause additional exposure of humans with the requirements of radiation protection;

(4) in conjunction with the Ministry of the Environment draw up the list of certified building materials subject to mandatory radiation testing.

REPUBLIC OF LITHUANIA

Law on The Management of Radioactive Waste*

adopted on 20 May 1999

No. VIII-1190

Chapter I

GENERAL PROVISIONS

Article 1

Purpose of the Law

This Law shall regulate relations of legal entities, enterprises without legal personality and natural persons in the management of radioactive waste, and shall establish the legal basis for the management of radioactive waste.

Article 2

Definitions

1. **Site** – a territory of definite limits where a radioactive waste management facility is under construction, has been constructed or which is under examination for the projected construction of a radioactive waste management facility.

2. **Treatment** – operations intended to facilitate the safe and economic management of the radioactive waste by reducing its volume, removing radionuclides from the waste, and changing its composition.

3. **Exposure** – a process during which people and the environment are exposed to ionising radiation.

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* Translation kindly provided by the Lithuanian authorities.

4. **Waste producer** – an enterprise, institution or organisation which generates or has generated radioactive waste during its operation.

5. **Barrier** – a physical obstruction that prevents or delays the movement of radionuclides or other substances containing radionuclides between the elements of the radioactive waste management facility. Barriers may be engineered and natural.

6. **Nuclear damage** – an individual's death or damage to his health, loss of or damage to property, adverse effects on the environment because of the harmful impact of ionising radiation connected with the operation of a radioactive waste management facility or a nuclear/radiological accident.

7. **Decommissioning** – implementation of legal, organisational and technical measures with the aim of refurbishing a radioactive waste management facility, when a decision is made that the facility will no longer be used for its primary function.

8. **Operator** – a licensed economic entity that has the necessary material and financial resources to operate a radioactive waste management facility, and responsible for its safety.

9. **Conditioning** – operations used in the production of radioactive waste packages suitable for transportation, storage and/or disposal. Conditioning may include the conversion of the waste to solid form, enclosure of the waste in containers, and, if necessary, providing an over-pack.

10. **Licensing body**– a public authority responsible for the issue of licences.

11. **Licence** – an official document issued by a public authority entitling the applicant to engage in specified radioactive waste management activities in compliance with the prescribed conditions and requirements.

12. **Spent nuclear fuel** – fuel irradiated in the reactor core when the operator of a nuclear plant provides in the manner prescribed by the licensing body that said fuel will no longer be used in reactors.

13. **Pre-treatment of radioactive waste** – any or all the operations prior to waste treatment, such as collection, segregation, chemical adjustment, and decontamination.

14. **Commissioning** – the process during which the systems and elements of the constructed radioactive waste management facility are made operational and are verified to ensure accordance with design specifications and the required performance criteria.

15. **Waste acceptance criteria** – criteria relevant to the acceptance of waste packages for storage and disposal.

16. **Radiation protection** – the aggregate of legal, technical, technological, construction and sanitary norms and rules, environmental and safety at work requirements and measures ensuring protection of every person, society and the environment from the harmful effects of ionising radiation.

17. **Radioactive waste** – spent nuclear fuel and substances contaminated with or containing radionuclides at concentrations or activities greater than clearance levels and for which no further use is foreseen.

18. **Radioactive waste repository (hereinafter "repository")** – a radioactive waste management facility where waste is placed for disposal.

19. **Closure of a radioactive waste repository** – the status of or an action directed at the repository at the end of its operating life and after completion of waste disposal.

20. **Radioactive waste disposal (hereinafter "disposal")** – the placing of radioactive waste in a repository without the intention of retrieval.

21. **Radioactive waste storage facility (hereinafter "storage facility")** – a radioactive waste management facility intended for the storage of radioactive waste.

22. **Radioactive waste management** – activities related to the management and utilisation, involving the pre-treatment, treatment, conditioning, transportation, storage and disposal, of radioactive waste, decommissioning of a radioactive waste management facility, and the permanent closure of a radioactive waste repository.

23. **Radioactive waste management facility** – a nuclear facility which is basically intended for the management of radioactive waste. Any radioactive waste management facility existing upon entry into force of this Law shall be called an existing radioactive waste management facility.

24. **Protection** – the aggregate of legal standards and rules, as well as technical, scientific and organisational measures and procedures intended to prevent uncontrolled and undesirable effects on people and the environment during normal operation of facilities and in other cases.

25. **Storage** – storage of radioactive waste in a radioactive waste management facility where its isolation ensures control over its impact on people and the environment, with the intention of reaching clearance levels for exemption or processing and subsequent disposal.

26. **Small waste producer** – a waste producer with the exception of the operator of a nuclear plant.

27. **Radioactivity clearance levels (hereinafter "clearance levels")** – a set of values, established by the state government and supervision institutions, expressed in terms of activity concentrations (specific activity, surface contamination, total activity, etc.), at or below which substances contaminated with or containing radionuclides shall be exempt from the control of the licensing body.

28. **Sealed source** – a source of ionising radiation sealed in a capsule or closely bonded and in a solid form, excluding reactor fuel elements.

29. **Post-closure supervision** – supervision of the site of the repository following its closure. Supervision may be active (monitoring, access restriction, maintenance, etc.) or passive (restrictions on land use, etc.).

Chapter II

PRINCIPLES OF RADIOACTIVE WASTE MANAGEMENT

Article 3

Principles of Radioactive Waste Management

Management of radioactive waste must ensure that:

(1) at all stages of the radioactive waste management, by applying appropriate methods, all individuals and the environment in Lithuania and beyond its borders are adequately protected against radiological, biological, chemical and other hazards that may be associated with radioactive waste;

(2) efforts are made to avoid actions that impose a reasonably predictable impact on future generations greater than that permitted for the current generation and to avoid imposing undue burdens on future generations;

(3) the generation of radioactive waste is kept to the minimum practicable;

(4) interdependencies among the different steps in radioactive waste management are taken into account;

(5) safety of radioactive waste management facilities is guaranteed during their operating lifetime and afterwards.

Chapter III

REGULATION OF RADIOACTIVE WASTE MANAGEMENT

Article 4

Competence of the Government in the Sphere of Radioactive Waste Management

The Government shall:

(1) make decisions on the construction and decommissioning of specific storage facilities and/or repositories;

(2) set aside plots of land in the manner prescribed for radioactive waste storage facilities and/or repositories;

(3) form a commission for the commissioning of a storage facility and/or a repository;

(4) make decisions on the termination of post-closure supervision of repositories;

(5) approve the Strategy of Radioactive Waste Management every five years;

(6) approve the programme of the Radioactive Waste Management Agency [*Radioaktyviųjų atliekų tvarkymo agentūros programą*] for three years;

(7) support and finance the implementation of research programmes and introduction of new technologies as well as training of specialists in the field of radioactive waste management;

(8) adopt legal acts regulating acquisition, storage, transportation and disposal of nuclear and radioactive substances or shall instruct authorised institutions to adopt such acts as prescribed.

Article 5

Competence of the State Atomic Energy Safety Inspectorate in the Sphere of Radioactive Waste Management

1. The State Atomic Energy Safety Inspectorate [*Valstybiné Atominés Energetikos Saugos Inspekcija – VATESI*] is the key institution which regulates the safety of radioactive waste management.

2. The State Atomic Energy Safety Inspectorate shall:

(1) issue licences in the manner specified in Articles 9 and 10 of this Law;

(2) co-ordinate the Radioactive Waste Management Strategy developed by the Radioactive Waste Management Agency;

(3) co-ordinate the three-year programme of the Radioactive Waste Management Agency;

(4) after consultation with the Radiation Protection Centre [*Radiacines Saugos Centras*] and the Ministry of the Environment, establish the criteria for the classification and acceptance of radioactive waste;

(5) control and ensure compliance with the legal requirements applicable to radioactive waste management.

Article 6

Competence of the Ministry of Economy in the Sphere of Radioactive Waste Management

The Ministry of Economy shall:

(1) upon the proposal of the Radioactive Waste Management Agency and after consultation with the Ministries of the Environment and Health, and the State Atomic Energy Safety Inspectorate, submit to the Government for approval the three-year programme of the Radioactive Waste Management Agency, with the projected earnings and expenditures of the Agency; and – every five years – it shall submit the Radioactive Waste Management Strategy;

(2) approve the regulations of the Radioactive Waste Management Agency and exercise the functions of the founder of that Agency;

(3) submit proposals to the Government on the construction or decommissioning of specific storage facilities and/or repositories;

(4) organise bilateral and multilateral international co-operation in the field of radioactive waste management;

(5) approve the recommendations of the Radioactive Waste Management Agency concerning rates for the services rendered by the Agency;

(6) approve the programme and the budget of the Radioactive Waste Management Agency for the coming year;

(7) approve the annual report of the Radioactive Waste Management Agency together with the final audited financial account.

Article 7

Competence of the Ministry of the Environment in the Sphere of Radioactive Waste Management

The Ministry of the Environment shall:

(1) after consultation with the Ministry of Health, establish clearance levels and the conditions of re-use and disposal of decontaminated substances;

(2) after consultation with the Radiation Protection Centre, approve regulations for decontamination of non-nuclear equipment, land and structures contaminated by radionuclides, prepared by the Radioactive Waste Management Agency;

(3) after consultation with the Ministry of Health and the State Atomic Energy Safety Inspectorate, establish the maximum permissible level of contamination of the environment by radionuclides;

(4) in the manner prescribed by legislation and other legal acts, participate in the issue of licences as set forth in Articles 9 and 10 of this Law.

Article 8

Competence of the Radiation Protection Centre in the Sphere of Radioactive Waste Management

The Radiation Protection Centre shall:

(1) within the limits of its competence, exercise state radiation protection supervision and control of radioactive waste management;

(2) issue licences as set forth in Articles 9 and 10 of this Law.

Article 9

Activities Subject to Licensing

Without a licence issued in the manner prescribed by the Government, it shall be prohibited:

(1) to design, construct, reconstruct or operate storage facilities and repositories, decommission storage facilities, to permanently close repositories and carry out post-closure supervision;

(2) to engage in the transport of radioactive waste;

(3) to collect, sort, engage in the pre-treatment, treatment, or conditioning of, to store, recover or decontaminate radiactive waste.

Article 10

Issue of Licences and Authorisations

1. Licences for the activities described in subparagraph 1 of Article 9 of this Law shall be issued by the State Atomic Energy Safety Inspectorate after consultation with the Radiation Protection Centre, the Ministry of the Environment and the local authority whose territory lies, in full or in part within the sanitary protection zone of a radioactive waste storage facility or repository.

2. Licences for the activities described in subparagraph 2 of Article 9 shall be issued to transporters of radioactive waste by the Radiation Protection Centre after consultation with the Ministry of the Environment. In the case of transport of radioactive waste with nuclear substances, it is necessary to obtain the agreement of the State Atomic Energy Safety Inspectorate.

3. Licences to small producers for the activities described in subparagraph 3 of Article 9 shall be issued by the Radiation Protection Centre.

4. Exceptional permits to transport radioactive waste inside the country, and to export or to transport it in transit shall be issued to the dispatcher by the Ministry of the Environment after consultation with the Radiation Protection Centre. In the case of transport of radioactive waste with nuclear substances, it is necessary to obtain the agreement of the State Atomic Energy Safety Inspectorate.

5. The licensing body shall have the right to establish safety standards and requirements for radioactive waste management.

Article 11

Duties and Responsibilities of the Waste Producer

1. It shall be the duty of a waste producer to manage, in accordance with standards and regulations, radioactive waste safely before transferring it to the Radioactive Waste Management Agency.

2. The waste producer shall pay all expenses involved in the management of radioactive waste from the moment of its generation to its disposal, including expenses related to scientific research aiming to upgrade the radioactive waste management facility, as well as to the post-closure supervision of the repository.

3. The waste producer shall not be exempt from his duties and responsibilities to manage radioactive waste safely, even in the event of a temporary suspension or expiration of the licence.

4. Responsibility of the waste producer for the management of radioactive waste shall be terminated when:

   (1) the radioactive waste is transferred to the Radioactive Waste Management Agency;

   (2) the radioactive waste is legally exported from the Republic of Lithuania and the consignee accepts it for perpetuity under the laws of his country;

   (3) during the storage of radioactive waste, the level of its radioactivity naturally becomes lower than the clearance level. In this case the waste producer shall be responsible for the management of the resulting waste subject to the Law on Waste Management and other legal acts.

Chapter IV

RADIOACTIVE WASTE MANAGEMENT AGENCY

Article 12

The Radioactive Waste Management Agency: Establishment, Status and Governing Principles

1. The Ministry of Economy, under instruction of the Government, shall found the Radioactive Waste Management Agency (hereinafter referred to as "the Agency"). The Agency shall be a state enterprise guided in its activities by the Law on Nuclear Energy, the Law on Radiation Protection, the Law on State-owned and Municipal Enterprises, the regulations of the Agency and other legal acts. After the termination of its activities, the Agency's rights and obligations shall be assumed by the founding body *i.e.* the Ministry of Economy.

2. The Agency shall function in accordance with the Radioactive Waste Management Strategy approved by the Government, and the Radioactive Waste Management Programme. These activities of the Agency are subject to licensing.

Article 13

Functions of the Agency

1. The principal aim of the Agency is to manage and dispose of all radioactive waste transferred to it, while ensuring nuclear and radiation protection.

2. The Agency shall be the operator of storage facilities and repositories assigned to it.

Article 14

Management of the Agency

1. The Agency shall have a Board. Members and the Chairperson of the Board and its Director shall be appointed and dismissed by the Minister of Economy.

2. The Board shall consist of 9 members – representatives of State administration and local government institutions, waste producers and research institutions. Members of the Board of the Agency are not remunerated for their services. They may not be employed at the Agency.

3. The key tasks of the board shall be:

   (1) to oversee that the funds allocated for the activities of the Agency are used rationally and efficiently; and to notify the Director of the Agency and the Minister of Economy about breaches observed and proposed remedies;

   (2) to co-ordinate the programme and the budget of the Agency for the coming year, as well as the three-year programme of the Agency and the Radioactive Waste Management Strategy;

   (3) to assess the progress report of the Agency, including the implementation of the action plan and the budget for the accounting year, and to ensure auditing of the Agency's annual financial accounts;

   (4) to recommend to the Minister of Economy to appoint or dismiss the Director of the Agency, to change the organisational structure and the regulations of the Agency.

4. The rules of procedure of the Board shall be approved by the Agency's Board.

5. The Director of the Agency shall take part in the meetings of the board and shall have an advisory vote.

6. Travel expenses of the members of the board shall be reimbursed and their participation in meetings shall be remunerated in the manner prescribed by the Government.

Article 15

Transfer of Radioactive Waste to the Agency

1. Following the receipt by the Agency of radioactive waste from the waste producer, the Agency assumes responsibility for the management of such waste. Radioactive waste shall be regarded as transferred to the Agency from the moment of signature of an acceptance certificate. Prior to this, the waste producer must pay all expenses specified in paragraph 2 of Article 11.

2. The Agency must take radioactive waste over from the waste producer if the waste conforms to the acceptance criteria established by the State Atomic Energy Safety Inspectorate. The

Agency must inspect on the site of the waste producer whether the radioactive waste to be transferred conforms to the acceptance criteria.

3. If the licensing body establishes that the waste producer does not conform to the requirements of safe management of radioactive waste and radiation protection or if he has otherwise breached the terms and conditions of the licence, that body may make a decision on a compulsory transfer of the radioactive waste to the Agency. In such a case, the Agency shall ensure completion of the unfinished tasks in relation to radioactive waste management. The expenses incurred for the management of the radioactive waste shall be recovered from the waste producer in the manner prescribed by law.

4. Accounting criteria related to the accounting of radioactive waste shall be established by an institution authorised by the Government.

Chapter V

ASSESSMENT OF EXISTING RADIOACTIVE WASTE MANAGEMENT FACILITIES AND THEIR PAST PRACTICES

Article 16

Assessment of Existing Radioactive Waste Management Facilities and their Past Practices

1. The operator of a radioactive waste management facility must, if so requested by the licensing body, review its safety or the radiation protection situation, and make all practicable improvements to upgrade the safety of this facility.

2. In reviewing past practices of existing radioactive waste management facilities, the licensing body must decide whether any intervention is needed to improve radiation protection. Account must be taken of whether the decrease of hazardous effects is sufficient to justify the harm and the costs, including social consequences, of such an intervention.

3. Existing radioactive waste storage facilities and/or repositories shall acquire the status of storage facilities and repositories pursuant to this Law if the licensing body confirms that protective measures are not justifiable and radioactive waste disposed in such a repository or a storage facility does not pose a threat. The licensing body may provide terms and conditions under which such facilities acquire the status of repositories.

4. The operator of the existing radioactive waste management facilities shall make their safety assessment pursuant to Article 19 of this Law and shall submit a report of safety analysis to all the institutions involved in the licensing process.

Chapter VI

SITING, DESIGN AND CONSTRUCTION OF RADIOACTIVE WASTE MANAGEMENT FACILITIES

Article 17

Siting of Radioactive Waste Management Facilities

1. Siting of a radioactive waste management facility shall be carried out pursuant to the requirements of the Law on Territorial Planning and the Law on the Environmental Impact Assessment of Planned Economic Activity.

2. Siting of a radioactive waste management facility must be subject to preparation and implementation of procedures enabling:

   (1) the evaluation of all relevant site-related factors likely to affect the safety of such a facility during its entire operating lifetime, and in the case of a repository, its post-closure safety;

   (2) the assessment of the likely safety impact of such a facility on individuals, society and the environment, taking into account possible evolution of the site conditions of the repository in the post-closure period;

   (3) to inform the public about the safety of such a facility;

   (4) to inform neighbouring countries in the vicinity of the existing or planned radioactive waste management facility, insofar as they are likely to be affected by that facility, and provide them, upon their request, with general data necessary to enable them to evaluate the likely safety impact of the facility upon their territory.

Article 18

Design and Construction of Radioactive Waste Management Facilities

1. A radioactive waste storage facility and/or repository may be designed only upon the decision of the Government made on the proposal of the Ministry of Economy.

2. Designs for the construction or reconstruction, upgrading, expansion, decommissioning and dismantling of a radioactive waste management facility must be co-ordinated with the State Atomic Energy Inspectorate. Appropriate designs for storage facilities and/or repositories, including permanent closure, must be co-ordinated with the state authorities specified in the Law on Nuclear Energy and the Law on the Underground.

3. Designs for the construction or reconstruction, decommissioning, dismantling or permanent closure of radioactive waste storage facilities and/or repositories are subject to a mandatory global state expert evaluation. The evaluation shall be organised in accordance with the requirements of the Law on Nuclear Energy.

4. Supervision and monitoring of the construction, commissioning, operation and decommissioning of radioactive waste management facilities shall be conducted in accordance with the requirements of the Law on Nuclear Energy, other laws and legal instruments.

5. The design and construction of a radioactive waste facility necessarily entail:

(1) provision for an adequate number of barriers and safety measures limiting the likely impact of ionising radiation on individuals, society and the environment, as well as the effect of controlled and uncontrolled effluent;

(2) analysis of conceptual plans and, as necessary, technical provisions for the decommissioning of a radioactive waste management facility, except in the case of a repository;

(3) use of technologies that have been supported by experience, testing and analysis in Lithuania and other countries.

6. At the design stage of a repository, technical provisions for its permanent closure must be made.

Article 19

Safety Assessment of Radioactive Waste Management Facilities

1. Before the start of the construction of a radioactive waste management facility, except in the case of a repository, a complete safety assessment and an assessment of likely impact on individuals and the environment must be carried out in accordance with the Law on the Environmental Impact Assessment of Planned Economic Activity. The assessment must be appropriate for the risks presented by the facility and cover its operating lifetime.

2. Before the start of the construction of a repository, a systematic safety assessment and an assessment of likely impact on individuals and the environment must be carried out, covering the post-closure period.

3. Before a radioactive waste management facility is put into operation, an updated and detailed version of the safety assessment and assessment of its impact on people and the environment must be prepared and periodically renewed during the operation of the facility.

4. Responsibility for carrying out the safety assessment of the facilities specified in this Article and assessment of their impact on individuals and the environment shall be borne by the builder or the operator in the manner prescribed by laws and other legal instruments of the Republic of Lithuania.

Chapter VII

COMMISSIONING, OPERATION, DECOMMISSIONING AND POST-CLOSURE SUPERVISION OF RADIOACTIVE WASTE MANAGEMENT FACILITIES

Article 20

Commissioning of a Radioactive Waste Management Facility

1. Before a radioactive waste management facility is put into operation, a commissioning programme must be prepared by an enterprise, institution or organisation in the manner prescribed by laws and other legal instruments, and approved by the State Atomic Energy Safety Inspectorate.

2. Following the completion of construction or reconstruction, a panel appointed in the manner prescribed by laws and other legal instruments shall commission the radioactive waste management facility by signing the acceptance certificate as set out in this Law.

Article 21

Operation of a Radioactive Waste Management Facility

1. A radioactive waste management facility shall be put into operation only if it has been granted a licence under Articles 9 and 10 of this Law. The licence shall be granted based upon the results of the safety assessment as specified in paragraph 3 of Article 19 and the implementation of the commissioning programme as specified in Article 20 of this Law.

2. During the operation of a radioactive waste management facility:

   (1) operational limits and conditions derived from tests, operational experience and the safety assessment as specified in paragraph 3 of Article 19 of this Law must be defined and, as necessary, revised;

   (2) operation, maintenance, monitoring, inspection and testing of the radioactive waste management facility must be conducted in accordance with established procedures, standards, regulations and conditions attached to the licence. As regards a repository, the assessment results obtained in this manner shall be used to verify and review the validity of assumptions made during the preparation of safety assessments as specified in Article 19;

   (3) impact on individuals and the environment must be monitored;

   (4) radioactive waste must be sorted in accordance with the approved procedures and its characteristics must be established, taking into account its physical and chemical properties that might impact on the safety of its management;

(5) programmes to collect and analyse relevant operating experience must be established and, as necessary, appropriate steps must be taken to improve the operation of a facility on the basis of the obtained results;

(6) the licence holder must notify in a timely manner the State Atomic Energy Safety Inspectorate, the Ministry of the Environment and the Radiation Protection Centre of any incidents significant to safety;

(7) physical protection of a radioactive waste management facility must be ensured in accordance with the manner prescribed by the Government or an institution authorised by it.

Article 22

Radiation Protection

During the management of radioactive waste, the Law on Radiation Protection and the prescribed radiation protection standards must be complied with.

Article 23

Quality Assurance

The operator of a radioactive waste management facility shall be responsible for developing and implementing appropriate quality assurance programmes related to the safety of radioactive waste management. They shall be assessed by the licensing body. This body may decide which of the quality assurance measures must be carried out by independent experts.

Article 24

Emergency Preparedness

1. The operator of a radioactive waste management facility shall be responsible for ensuring that, before the commissioning and during the operation of a radioactive waste management facility, plans should be developed for accident and incident containment.

2. Before a radioactive waste management facility is put into operation, the Civil Protection Department of the Ministry of National Defence together with local authorities must draw up plans for the protection of the public in the territory likely to be affected in the event of a nuclear or radiological accident at the radioactive waste management facility. During the operation of the facility, accident and incident containment plans, and plans for the protection of the public must be regularly tested together with the operator of the radioactive waste facility. Before the decommissioning of a radioactive waste management facility such plans must be updated, taking into account the conditions of the decommissioning.

3. Prevention of nuclear and radiological accidents and their containment at radioactive waste management facilities shall be carried out in the manner prescribed by the Law on Nuclear Energy, other laws and legal instruments.

Article 25

Decommissioning of Radioactive Waste Storage Facilities and Other Facilities

1. Radioactive waste storage facilities shall be decommissioned upon the decision of the Government. Other radioactive waste management facilities shall be decommissioned upon the decision of the operator.

2. The procedure of decommissioning of a radioactive waste management facility shall be established pursuant to the Law on Nuclear Energy.

3. The operator of a radioactive waste management facility must take the appropriate steps to ensure that sufficient numbers of qualified staff and accumulated financial resources are available during the decommissioning. During the decommissioning of a radioactive waste management facility, it is obligatory to comply with the provisions of Articles 22 and 24 of this Law.

4. The operator of a radioactive waste management facility must record and keep all information as prescribed by the licensing body which is important for decommissioning.

Article 26

Post-closure Supervision of the Repository

The repository shall be closed upon the decision of the Government.

(1) Before the closure of the repository, the operator must ensure in the manner set forth by law that records of the disposed radioactive waste as prescribed by the licensing body, as well as technical documentation on the site and the construction of the repository must be kept indefinitely.

(2) Post-closure supervision of the repository shall be exercised by the Agency. The agency shall prepare a programme of post-closure supervision of the repository, co-ordinate it with the Ministry of the Environment and the Radiation Protection Centre, and submit it to the licensing body for its approval.

(3) At any moment of the supervision, upon detection of an uncontrolled discharge of radioactive substances into the environment or a likelihood of such a discharge, the Agency, where necessary, shall take appropriate measures.

(4) The post-closure supervision of a repository may be terminated with the permission of the licensing body and by the decision of the Government.

Chapter VIII

IMPLEMENTATION OF RADIOACTIVE WASTE MANAGEMENT PROGRAMMES

Article 27

Implementation of Radioactive Waste Management Programmes

Funds accumulated from mandatory and other payments in the manner prescribed by laws of the Republic of Lithuania shall be used for the implementation of radioactive waste management programmes.

Chapter IX

LIABILITY FOR VIOLATIONS OF THE LAW AND CIVIL LIABILITY FOR NUCLEAR DAMAGE

Article 28

Consequences of Violation of the Law

Legal entities and natural persons as well as entities without legal personality which violate the stipulations of this Law shall incur criminal, administrative and civil liability in the manner prescribed by laws of the Republic of Lithuania.

Article 29

Civil Liability for Nuclear Damage

Civil liability for nuclear damage of the operator of a radioactive waste management facility shall be as established by the Law on Nuclear Energy.

Chapter X

FINAL PROVISIONS

Article 30

Used Sealed Sources

1. Pursuant to Article 31 of this Law, re-entry into Lithuania of used sealed sources shall be permitted, in the manner prescribed by the Government or institutions authorised by it, if

they are intended for the legal entity which has manufactured them and which is authorised to receive and keep such sealed sources.

2. Sealed sources may be imported into the Republic of Lithuania if after their use it is intended to return them to their supplier or if the State Atomic Energy Inspectorate makes a decision to permit final disposal of these sources in the Republic of Lithuania.

3. The Radiation Protection Centre, when issuing licences in the manner prescribed by the Law on Radiation Protection for activities involving sources of ionising radiation, shall take account of the possibility of their final disposal after use or their return to the supplier if the sealed source was acquired abroad.

Article 31

Transport, Export and Transit of Radioactive Waste

1. Radioactive waste must be transported, exported or transported in transit in accordance with the provisions of the international agreements ratified by the Republic of Lithuania, laws of the Republic of Lithuania and other legal instruments regulating transport of radioactive substances.

2. Export and transit of radioactive waste shall be subject to prior notification and consent of the state of destination obtained in a prescribed manner.

3. Radioactive waste can only be transported across transit states in accordance with the international agreements and regulations that apply to the particular mode of transport involved.

4. Radioactive waste may be exported only to states that have the administrative and technical capacity to receive it, as well as the regulatory and supervisory structures needed to manage radioactive waste in accordance with the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

5. It shall be prohibited to transport radioactive waste for disposal to sites lying south of 60 degrees latitude South.

6. The manner for export and transit of radioactive waste, and re-entry of used sealed sources shall be established by the Government or an institution authorised by it.