NUCLEAR LAW BULLETIN No. 47

Contents

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Nuclear Energy Agency
Organisation for Economic Co-operation and Development

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

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

The 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) and New Zealand (29th May 1973) The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention) Yugoslavia takes part in some of the work of the OECD (agreement of 28th October 1961)

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

The primary objective of NEA is to promote co-operation among the governments of its participating countries in furthering the development of nuclear power as a safe environmentally acceptable and economic energy source

This is achieved by

- *encouraging harmonisation of national regulatory policies and practices with particular reference to the safety of nuclear installations protection of man against ionising radiation and preservation of the environment radioactive waste management and nuclear third party liability and insurance*
- *assessing the contribution of nuclear power to the overall energy supply by keeping under review the technical and economic aspects of nuclear power growth and forecasting demand and supply for the different phases of the nuclear fuel cycle*
- *developing exchanges of scientific and technical information particularly through participation in common services*
- *setting up international research and development programmes and joint undertakings*

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

LEGAL NOTICE

F O R E W O R D

This issue of the Bulletin reports on the increasing co-operation between Western and Eastern European countries in the nuclear field. Several agreements have been concluded, in particular in the context of the IAEA so-called Notification and Assistance Conventions, whose status is also given in this issue

As usual, the latest national nuclear laws and regulations are reported and, thanks to the Bulletin's new correspondents in Eastern European countries, information is also provided on their most recent nuclear legislation

The Bulletin also contains an article on a question which generates much concern at present. that of managing hazardous wastes of all types in such a way as to protect present and future generations as well as the environment against their dangers The article provides an analysis of international regulations on radioactive and toxic wastes, pointing out their points of convergence and their differences

Work at the international level illustrates preoccupations regarding radioactive waste and has resulted in the NEA recently publishing a collective expert opinion on the long-term safety of radioactive waste disposal, and the CEC publishing a recommendation on effluent releases This work and other international regulatory activities are also reported

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INTERNATIONAL REGULATIONS ON RADIOACTIVE AND TOXIC WASTE· SIMILARITIES AND DIFFERENCES

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Abstract

This article analyses and compares the international instruments which govern the management and disposal of radioactive waste and toxic waste. In particular, it discusses control of waste at the source, the principle of self-sufficiency with regard to disposal, the procedures applied for its monitoring, the tasks and responsibilities of States, as well as third party liability for damage which could be caused by both types of waste. The article is supplemented by a list of instruments prepared in this field by the competent international organisations.

During the 1980s, public opinion became increasingly concerned with the problem of the management of hazardous waste[1], and more especially toxic industrial waste Several cases of the disposal of toxic waste in a way incompatible with environmental protection[2] came to light, and this led to the drafting of a series of international legal instruments regulating transboundary movements and, more generally, the management of such waste, in order gradually to fill the legal vacuum which had existed in this field It should be noted, however, that this growing awareness and the regulations to which it gave rise may, when compared to work on the regulation of radioactive waste, be considered as relatively late

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The special nature of nuclear activities and the fact that they were already largely regulated by separate rules[3] were used to justify the exclusion of radioactive waste from the field of application of the regulations governing toxic waste However, the argument that radioactive waste was already subject to stricter rules or rules better suited to its special nature has sometimes been contested and doubts expressed as to whether the controls set up under existing instruments are satisfactory[4] More recently, the desirability of regulations covering all hazardous waste, both toxic and radioactive, under single instruments, has been argued on several occasions and within many international bodies[5] In parallel with such arguments, an increased effort has been made to strengthen and complete the regulations dealing specifically with radioactive waste

At the present time, there is a convergent trend in the development of the two separate sets of regulations governing radioactive waste and toxic waste respectively Each have their strong and their weak points, but all problems encountered and solutions adopted in one field now affect the other and encourage new developments This does not signify any blurring of their special characteristics, since the regulations involved are drafted in different contexts and continue to meet needs which are not identical

Nevertheless, a comparison may be made between radioactive waste and certain toxic wastes which gradually grow less hazardous until becoming harmless In the case of such wastes, the method used for storing radioactive waste temporarily until its radioactivity is considerably reduced can, making due allowances, be used Other substances, on the other hand, are extremely stable so that their toxicity may be considered as quasi-eternal In cases such as these, the model of the storage or disposal of long-lived radioactive waste should preferably be applied The idea that containment of such waste should be self-sufficient, composed mainly of intrinsic safety barriers and requiring a minimum of institutional controls[6], may be applied also to toxic waste, especially when the substances concerned cannot, strictly speaking, be disposed of but must be isolated from the biosphere

Instruments dealing specifically with **toxic waste** exist at practically all levels of international co-operation, both worldwide and on a regional basis The nature of such instruments varies from statements of principle to texts imposing obligations[7] However, in spite of endeavours to have instruments adopted which propose comprehensive solutions at worldwide level, these regulations are still far from covering all the issues raised by the management of toxic waste though having benefited from conditions favourable to the formulation of a comprehensive system of protection, these endeavours met with differences in approach and interests among the industrialised countries and developing countries, and these have delayed the solution of certain problems

Furthermore, the fairly limited number of international movements of **radioactive waste** so far[8] explains why international law has taken relatively little interest in them except to apply general radiation protection and radioactive materials transport safety instruments, thus leaving the field clear for national regulations[9] Certain aspects of international management have therefore been addressed only marginally While it is true that today,

the international transfers of such waste are comprehensively covered in recommendations only[10], instruments imposing obligations currently being drafted[11] could in future meet the needs arising from increased transboundary movements

The control of waste at source

Hazardous waste, whether radioactive or toxic, is an unavoidable by-product of modern industrial processes Unlike useful products, it is of negative mercantile value only that of the cost of its disposal Furthermore, it involves considerable risks, which renders these by-products undesirable and explains in part the strong negative reactions shown by public opinion[12] This is why most countries are today finding it difficult to implement a waste management policy which is both technically sound and socially acceptable

It is now generally recognised that the underlying guiding principle for such management is the minimisation of the volume of hazardous waste, both through the development of "clean technologies" and the consequent limitation of waste production during industrial processes (the principle of control at source), and through recovering and recycling part of such waste, thus re-introducing it into the production cycle[13] The IAEA Code of Practice states that in the context of their responsibilities relating to the protection of man and the environment against hazards connected with ionizing radiation, States should take the appropriate steps to reduce the volume of radioactive waste Similarly, under the Basel Convention, States must take appropriate measures to reduce the production of toxic and other waste to a minimum, taking into consideration social, economic and technological factors

Furthermore, the most recent Decision of the Council of the OECD[14] emphasizes the importance, in ensuring environmentally sound and efficient waste management practices, of increasing the quantities of waste subjected to recovery operations, which by definition reduces the amount of waste requiring final disposal

It should, however, be remembered that the status of residual toxic substances which are to be recycled or re-used is not at present very clear This ambiguity is due to the relative nature of the definition of "waste" apart from the types of waste listed in the relevant international instruments, the definition of waste includes substances or objects "which the holder disposes of or is required to dispose of pursuant to the provisions of national law in force"[15] Consequently, toxic "waste" capable of being recycled may be considered as hazardous waste or as being exempt from all control[16]

There is, on the other hand, no ambiguity in this respect as regards radioactive wastes these are substances for which "no use is foreseen"[17] Radioactive residues which it is intended to recycle cannot therefore be defined as wastes Thus, whether or not spent fuel is considered as waste depends on the reprocessing policy of the country concerned[18]

Self-sufficiency with regard to disposal[19]

Even with an effective at-source control and after recycling all the substances which may technically and economically be recovered, there still remains the problem of managing a considerable volume of waste resulting from this process and then disposing of it

It has to be said that public concern regarding hazardous waste often operates at national, or even local level only The so-called NIMBY attitude ("not in my back yard") or the systematic refusal to countenance any industrial installation, especially connected with the storage or disposal of waste, in the neighbourhood, does not reflect any concern of the population involved to ensure the environmentally sound management and disposal of such waste

This lack of social acceptance is at the root of two diametrically opposed attitudes, neither of which is conducive to rational waste management On the one hand, it may encourage the "dumping" of the waste produced in a given country by sending it abroad In this way, the waste concerned is no longer in the public eye, which sometimes is enough to calm the public, but disposal is often not effected in line with protection of the environment[20]

On the other hand, it leads to the problem of hazardous waste management being considered in terms of ill-defined morality rather than of actually protecting the environment it is "amoral" to benefit from production processes while at the same time making others suffer their undesirable consequences instead of assuming them directly According to this ethical concept, all hazardous waste should be disposed of at the place where it is produced Transboundary movements of hazardous waste should therefore be banned, even if they form part of environmentally sound disposal operations[21]

From this principle flows that of self-sufficiency with regard to waste disposal, leading to a ban on the export of waste which can normally be disposed of within the country concerned This principle is included, but in highly varying degrees, in instruments relating to toxic waste Both the Basel Convention and the OECD Resolution C(85)100 state that countries should "promote the establishment of appropriate disposal facilities for the management of hazardous wastes at the national level, since such action may serve to reduce the need for transfrontier movement of hazardous wastes"[22]

Certain instruments, like the Basel Convention, provide that no transfrontier movement should be authorised, unless there are sufficient technical grounds for it only those States without the technical capacity and installations required to ensure the environmentally sound management of toxic waste on their territory, should export such waste In this context, the export of waste is considered as something to be used as a last resort in exceptional circumstances and which could never be justified on purely economic or commercial grounds

Other instruments, on the other hand, mitigate the principle of prohibition by taking much greater consideration of economic needs, and recognise that this principle cannot be an absolute one but must be justified on grounds of environmental protection[23] For, the risks associated with the transfer of waste are not related so much to their export or even transport,

but rather to their being sent to destinations where their management in compliance with protection of the environment cannot be guaranteed Therefore, in cases where the exporter and the State of export are satisfied that a foreign destination, chosen for reasons of geographical proximity or reduced costs, affords sufficient guarantees, this destination should not be prohibited a priori

The principle of the self-sufficiency of disposal arises in different terms with regard to **radioactive waste** So far, transfrontier movements of such waste do not seem to have involved Third World destination and could in future take rather the opposite itinerary, towards the few countries with the technology and installations necessary to ensure disposal

The reasons for such transfers can be economic or even based on non-proliferation considerations Given the very high cost of constructing nuclear storage and disposal facilities and the unsound economics of building special storage sites for small quantities of radioactive waste produced in a context of low-level national programmes, various countries might be reluctant to develop their own facilities From their point of view it would make much more sense to send their waste to countries with major nuclear programmes, making it in any case essential to develop important storage and disposal infrastructures, capable also of receiving waste produced abroad

Furthermore, as already mentioned[24], non-proliferation considerations may lead certain countries which supply nuclear materials to require their customer countries to return such materials, after use, to the country of origin In this way, a disposal chain is gradually established, situated entirely within a limited number of countries Reflecting therefore this particular situation, the IAEA Code of Practice contains no provisions similar to the principle of disposal self-sufficiency This being said, in spite of the fact that the nuclear industry might prefer an inter-State co-operation approach rather than this principle[25], it seems unlikely that public opinion will allow such programmes to be implemented in a foreseeable future

The prior consent of the countries concerned

If it is accepted that the export of waste to facilities situated in other countries may be justified on grounds of sound and effective management, it has generally been agreed from the beginning of the drafting of instruments regulating **toxic waste**, that the export of such waste should not be allowed without the prior consent of the importing country In order to satisfy this condition, the competent authorities of the importing country must be given sufficient notice of all aspects of the proposed consignment of the waste in question notably as to its nature, the conditions of transport, the facility it is being sent to and the proposed procedures for disposal This implies a comprehensive system for monitoring and controlling the movements of waste from the place of production to the place of disposal, requiring monitoring of the waste throughout its journey, carried out by the exporting country by means of a system of licensing and a standard notification document[26]

Under these texts, exporting countries are required not to authorise any movement of waste by the producer before having received the consent in writing of the importing country Failure by the latter to reply amounts to tacit refusal The same system provides for consideration to be taken of the interests of the other countries concerned, notably the countries of transit. However, the rights of the latter countries are not as clearly established as those of the importing country While it is generally accepted that there is an obligation to notify countries of transit[27], there has long been discussion as to whether the exporting country is obliged to refrain from authorising the transfer until receiving the consent of those countries[28]

There is for the moment no similar system relating to **radioactive waste** The IAEA Transport Regulations are concerned with the intrinsic safety aspects of the transport operation and not the monitoring of the substances transported The IAEA Code of Practice, for its part, recommends that no transboundary movement of radioactive waste should take place without the prior consent of all countries concerned However, since the Code is not legally binding, it cannot impose any monitoring system to ensure the control of this waste In this respect, a new instrument is being drafted at present which could, as soon as it is adopted, fill this gap, at least in Europe this is the proposed amendment of Community Directive 80/836 on the health protection of the general public and workers against the dangers of ionizing radiation[29]

According to this proposal, exports of radioactive waste would be expressly subject to the same prior authorisation requirements which apply to radioactive substances already covered by the Directive in its present form Provision would also be made for a standard notification document and system of notification and prior consent of the countries concerned, based on the model of the Community Directives in the field of toxic waste

The principle of non-discrimination in the management of exported waste

In addition to the prior consent of countries involved in transboundary movements, the various instruments governing radioactive and toxic waste usually require that they be managed in a fashion compatible with protection of the environment, wherever the place of disposal Thus, hazardous waste exported for purposes of reprocessing or disposal should be subject to rules and measures no less strict than those applicable to waste managed and disposed of in the State where they were produced This principle of non-discrimination is one of the first adopted in the field of **toxic waste**[30] Similarly, with regard to **radioactive waste**, the Code of Practice refers to the safety principles established by the IAEA[31] which provide that in the policies and criteria applied in respect of protecting foreign populations from radioactive effluent releases, the standards applied should not be less strict than when they concern the population of the country releasing the effluents

More specifically, the disposal facilities to which hazardous waste is exported must meet environmental protection requirements This principle of the adequacy of disposal facilities appears in all international instruments concerning **toxic waste** The Decision of the Council of the OECD[32] on exports of hazardous waste from the OECD area prohibits movements of waste to non-Member countries unless the waste is directed to an adequate disposal facility and

requires the exporter to assure himself that the proposed disposal operation can be performed in an environmentally sound manner Also under the Basel Convention, States must not authorise the export of toxic waste if they have reason to believe that the waste would not be managed in accordance with environmentally sound methods in the country of destination

No details are given in these instruments as to what makes a facility or proposed disposal adequate Existing provisions give only a few indications to guide the States concerned[33] There is no doubt that the facility or project in question must satisfy the criteria established under the clauses and regulations applicable in the country of disposal, a condition which should be verified by the exporting country However, should the criteria of the country of destination be less strict than those prevailing in the country of origin of hazardous waste, acceptance of the less strict criteria would amount to a breach of the principle of non-discrimination The competent authorities of the exporting country should therefore assess whether the facility or proposed disposal of the third country is adequate in the light of the principles recognised for environmental protection and the disposal practices applicable in their own country

As regards **radioactive waste,** this approach is very clearly reflected in the relevant provision of the IAEA Code of Practice This provision is so worded that the authorisation of the State in which the disposal facility is located, certifying the adequacy of this facility, is not sufficient if the criteria in force in that country are not considered as satisfactory It is suggested, therefore, that, in addition to obtaining the consent of the importing country, the exporting country should verify that the latter has the administrative and technical capacity as well as the regulatory structure required to manage and dispose of the radioactive waste in compliance with international safety standards

Obligations of States concerning the proper progress of movements

On the basis of the principle of self-sufficiency as regards the disposal of hazardous waste and of the assumption that countries producing such waste are responsible for restricting its transboundary movements to a strict minimum, certain developing countries have asked that the exporting State be recognised as solely liable for any damage caused by international transfers of hazardous waste This concept of State liability was not, however, incorporated into the relevant texts

Nevertheless, under these texts, the exporting State is ultimately responsible for the environmentally sound management of the waste and for the proper functioning of international movements of waste Both the OECD Council Acts on toxic waste and the Basel Convention provide that the State in question must ensure that the exporter takes back into his territory and toxic waste which, for whatever reason, was unable to reach the disposal site or could not be disposed of in accordance with the terms of the contract concluded, without hindering the re-importation of the waste concerned In cases of illegal traffic in waste[34], the country of export is responsible for ensuring re-importation should the exporter himself be unable to do so, or if he cannot be identified

For its part, the IAEA Code of Practice recommends that the State of export should take the measures required to allow the re-importation into its territory of any radioactive waste whose transfer cannot be completed in accordance with the Code However, no State is obliged to re-admit into its territory any waste resulting from the reprocessing of spent fuel which had, under the reprocessing contract, been sent back to the country of the fuel's origin

It is clearly not a question of the exporting country taking responsibility for waste exported when its disposal abroad becomes difficult, since such responsibility arises in a subsidiary manner only, in place of the exporter It is rather an obligation not to hinder, but rather to facilitate any arrangement in respect of such waste which promotes the protection of the environment

Third party liability for any damage caused by the waste

The question of liability for damage caused by hazardous waste is one of the main issues of the management of the risk represented by such waste In the field of nuclear energy, appropriate rules were introduced very early on, namely the system of the regional Paris Convention of 1960[35] and the 1963 Brussels Supplementary Convention governing third party liability and compensation for nuclear damage[36] The 1963 Vienna Convention[37], with world-wide application, did not enter into force until after those Conventions, in 1977 The provisions involved apply to nuclear materials, including radioactive waste, to its disposal and transport, with the exception of certain low-level waste, such as mill tailings and certain research laboratory waste[38], as well as waste from the use of radioisotopes for industrial, commercial, agricultural, medical, scientific or educational purposes, provided they are situated outside a nuclear installation

Under these Conventions, the nuclear operator is absolutely and solely liable for damage caused by an incident involving waste being held in his installation or in the course of carriage to or from such installation In exchange, this liability is limited both in time and amount A maximum amount of liability is laid down, for which the operator must take out and maintain insurance or some other form of financial security

Actions for compensation of damage exceeding the maximum amount of the operator's liability are, under the Brussels Supplementary Convention, settled out of public funds supplied in tiers, the first paid by the State of the installation in question, and subsequently by the other States Parties to the Convention[39]

At present, there is no similar system in respect of toxic waste during the preparatory work for the Basel Convention, opinions differed so widely[40] that the Conference simply entrusted a special working group with the drafting of a Protocol on liability for and compensation of damage caused by the waste concerned[41] Also, a draft Directive on third party liability for damage caused by toxic waste is at present being prepared within the European Communities[42] The principles underlying the two texts being prepared are in part based on the nuclear Conventions absolute liability channelled to the

waste producer, limited in time, but not in amount Also being discussed is the possibility of obliging producers to take out insurance to cover any damage caused by the waste

Another draft Convention which could apply to certain aspects of the management of hazardous waste, both toxic and radioactive, is the draft Convention of the Council of Europe on damage resulting from activities hazardous for the environment, the purpose of which is to ensure adequate compensation for such damage, and which includes provisions regarding its prevention and restoration of the environment This draft Convention applies, inter alia, to damage caused by the handling, storage and disposal of substances constituting a significant risk for man, the environment or property, and therefore, hazardous waste in general It does not, on the other hand, apply to the transport, and thus to transboundary movements, of such substances or waste

Nuclear substances and waste would also be covered inasmuch as the above-mentioned Conventions on third party liability in the field of nuclear energy or specific national laws are not applicable Thus, the draft Convention would apply to radioactive waste of the type excluded from the scope of the liability Conventions[43] only if that waste is stored outside a nuclear installation, and is not in course of carriage, such as radioisotope sources stored in hospitals or industrial units[44]

NOTES

1 The term hazardous will, throughout this article, be given its usual meaning, i e "which exposes to a hazard", and thus includes both toxic and radioactive waste It should however be pointed out that hazardous waste is usually defined in most relevant international legal instruments as including solely toxic, and not radioactive waste, which latter is usually excluded from the scope of such instruments, as will be seen below

2 The first case which demonstrated the need to monitor international transboundary movements of toxic wastes was that of the Seveso wandering drums In 1982, drums containing earth contaminated by dioxin, following the accident at Seveso on 10th July 1976, travelled around Europe without any knowledge of their itinerary They were finally discovered in France, where they were dispatched to the Hoffman-Laroche Company in Switzerland

Six years later, 1988 was the year of scandals due to consignments of hazardous wastes being sent to Third World countries European and American companies proposed to several African countries contracts for dispatching and storing on their territories, industrial toxic waste produced in Europe and the United States "Garbage cargo ships", such as the Zanoobia, Khian Sea or Karin B went on long journeys, trying to dump their dangerous cargoes before obtaining the authorisation to return them to their point of departure after pressure from public opinion

(Reference François Roelants du Vivier, "Les vaisseaux de poison", ed Sang de la Terre, Paris, 1988)

3 Especially in the framework of the comprehensive regulation of the management of radioactive materials and protection from ionizing radiation during transport, both of which apply also to radioactive waste

4 During the preparatory work on the Basel Convention on the control of transboundary movements of hazardous wastes, several developing countries as well as certain non-governmental international organisations felt that the existing instruments did not ensure an effective and comprehensive control of transboundary movements of radioactive waste, and that such waste should therefore be included within the scope of the Convention They especially emphasized that the legal instruments dealing with radioactive materials contained no provisions on the monitoring and control of their transfer since, on the one hand, the commercial value of such materials as well as the risk of their being used for military purposes, were both good reasons for vigilence on the part of their possesor The result is that the instruments in question do not take sufficient account of the special nature of waste as compared to useful materials, as would have been possible under a specific instrument

Furthermore, the Mol-Transnuclear incident alerted the European Parliament to this issue and it set up a Committee of Inquiry entrusted with studying the adequacy of Community Acts in this sphere, and subsequently, adopted a series of Resolutions on the transport of radioactive waste See Gerhard Schmid, Report drawn up on behalf of the Committee of Inquiry on the handling and transport of nuclear material, on the result of the inquiry, European Parliament Working Documents, 24th June 1988, as well as European Parliament, Resolution of 6th July 1988 (OJ No C 235 of 12 9 88) and Resolution of 27th October 1988 on the follow-up to the inquiry on the handling and transport of nuclear material (OJ No C 309 of 5 12 88)

5 European Parliament Report of 29th May 1990 on the proposal COM(89)282 Final - SYN 217, for a Directive concerning third party liability for damage caused by waste On the other hand, the Convention on the Ban on the Import of all Forms of Hazardous Wastes into Africa and the Control of Transboundary Movements of Such Wastes Generated in Africa, adopted at Bamako, Mali, on 29th January 1991, provides in its Article 2(2), that wastes which, as a result of being radioactive, are subject to othe control systems, including international systems applying specifically to radioactive materials, are included to the scope of the Convention

6 OECD Nuclear Energy Agency, Long-Term Management of Radioactive Waste Legal, Administrative and Financial Aspects, Paris, 1984

7 Such instruments include the various Acts of the OECD Council on the transfrontier movements and export of hazardous wastes, the European Community Directives on hazardous wastes and their transfrontier movements, and the Basel Convention on transboundary movements and disposal of hazardous wastes A list of such instruments is given in the Annex hereto

8 There are three main types of international movements of radioactive waste

- Movements of low and medium-level waste for disposal at sea, carried out between 1967 and 1983 under the control of the OECD Nuclear Energy Agency by certain of its Member countries There are no plans to carry out other operations of this type in the near future

- Movements of highly radioactive waste from the reprocessing of spent fuel from abroad which must, under the relevant reprocessing contracts, be sent back to the country of origin after a period of storage for stabilization purposes The anticipated return of the radioactive waste is to commence shortly

- The largest volume is constituted by international movements of waste radioisotope sources, being sent back to the supplier country by user countries without the means to deal with them

9 In 1961, the International Atomic Energy Agency published Regulations for the Safe Transport of Radioactive Materials, which included radioactive waste The Regulations are of direct and mandatory application only in respect of the work of the Agency, having otherwise the character of recommendations However, their provisions have been included in various international regulations governing the different modes of transporting dangerous goods and, also, adopted by a large number of countries as a basis for their national regulations, thus explaining the relatively standard nature of such regulations The IAEA Regulations are reviewed periodically

Apart from the Transport Regulations, other international radiation protection instruments, such as the Radiation Protection Convention, 1960 (No 115) of the International Labour Organisation, could in theory apply to transboundary movements of radioactive waste These, however, are for the most part instruments which do not deal specifically with international transfers and which do not generally add any supplementary protection provisions in respect of radioactive waste

10 The recommendations in question are those included in the Code of Practice on the International Transboundary Movement of Radioactive Waste, adopted by the Board of Governors of the IAEA in June 1990 This Code is the only existing instrument on the transboundary movements of radioactive waste

11 Proposal for a Directive amending Directive 80/836/Euratom laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation, with regard to prior authorisation for transferring radioactive waste, COM(90)328 Final of 25th July 1990 (OJ No C 210/7 of 23rd August 1990)

12 As far as radioactive waste is concerned, to the aversion shown by the public to anything perceived as the rubbish from human activities, must be added public distrust of nuclear energy and nuclear activities

13 The Conference organised by the OECD at Basel in 1985 on international co-operation concerning transfrontier movements of hazardous wastes recognised that "the basic principles for the management of wastes (.) must be, first, to prevent and reduce, so far as possible, the generation of wastes, to limit their hazardous character and to try to improve production processes and, secondly, to increase the proportion of wastes that is recycled or re-used or treated so as to reduce their hazardous character" The EEC Directive 91/156/EEC replacing Directive 75/442 includes this principle in its introduction.

14 C(90)178(Final)

15 This definition, included in EEC Directives 75/442 and 78/319 is interesting in that it makes the definition of waste dependent on the legislation and commercial policy of the countries concerned Under United Kingdom law, for example, the definition of waste is still more relative since it depends on the subjective test of the possessor independently of the opinion or preference of third persons, or of the economic or commercial value of the goods in his possession, only the possessor is competent to define whether any given materials are waste or not

16 Materials which can be recycled do not feature on the joint list in the various instruments dealing with toxic waste They are therefore only considered as hazardous waste if the national law of the countries concerned considers them as such Under Decision C(88)90(Final) of the OECD, materials which may be recycled are subject to control as hazardous wastes if they are qualified as such under the law of the country of export, but the latter may decide not to exercise any control over the exports of materials which only the country of import qualifies as hazardous wastes, since Member countries are not obliged to apply laws other than their own The Basel Convention, on the other hand, applies to wastes which are qualified as hazardous solely by the country of import, and therefore requires exporting countries to exercise control over certain materials which are not defined under their internal law as hazardous waste, and which they therefore have no legislative means of controlling

17 This definition of radioactive waste which, while not having any value in law since it is simply proposed by the OECD Nuclear Energy Agency in its publication Objectives, Concepts and Strategies for the Management of Radioactive Waste arising from Nuclear Power Programmes, Paris, 1977, gives a good indication of the approach adopted by most national regulations

18 Some countries, such as the United States and Canada, have decided, on economic or non-proliferation grounds, not to reprocess spent fuels used or supplied by them Such fuels are therefore considered as radioactive waste and must be stored and dealt with as such

19 The term disposal refers to all final waste management operations, whether the permanent storage of waste or its actual disposal properly so-called

20 "It is in fact nothing other than the manifestation of a quite understandable egoism to prefer that the disadvantages should always fall to one's neighbours and the advantages to one's self " ("Rapport sur la gestion des dechets nucleaires a haute activite", by Mr Christian Bataille, Depute Paris, Documents Assemblee Nationale No 184, Annex to the summary record of the session of 17th December 1990)

21 What is involved here is the principle of a total ban, defended by certain developing countries during the preparatory work for the Basel Convention In reply to the question whether an environmentally sound management of toxic waste would be better accomplished by strengthening the controls over their transfrontier movements or by reducing such movements to a minimum, or even partly or totally banning them, the position expressed by Resolution CM/Res 1153 (XLVIII) of the Organization of African Unity, adopted in May 1988, was to ban movements of waste to or across countries which had expressed the desire to close their borders to such movements through national or regional legislation Under the Basel Convention, countries undertake to ban exports of toxic waste from their territory to countries which do not wish to import such waste The same approach is adopted by the fourth Lome Convention between the European Communities and the ACP countries (a group of African, Caribbean and Pacific countries with close commercial links to the Communities) all exports of hazardous waste, whether toxic or radioactive, from Member States of the Communities to ACP countries is forbidden (Article 39 of the Convention)

Rather active support for this same principle is currently being expressed in the European Parliament as far radioactive waste is concerned (see the discussions of the European Parliament of 12th and 25th October 1990 regarding transfers of radioactive waste to the installation at Dounreay)

22 OECD Conference on International Co-operation Concerning Transfrontier Movements of Hazardous Wastes, Basel, Switzerland, 26th-27th March 1985

23 The Decision and Recommendation of the OECD Council C(83)180(Final), adopted on 1st February 1984, provides that "efficient and environmentally sound management of hazardous waste may justify some transfrontier movements of such waste in order to make use of appropriate disposal facilities in other countries" It is provided that movements should be controlled so as not to discourage or hinder the recovery of waste materials

24 See above, Note 18

25 Inter-governmental agreements ratifying private reprocessing contracts may be considered as an example of this desire for co-operation, as may international co-operation on research into the storage and disposal of radioactive waste (see the General Assembly of the United Nations, Report by the Secretary-General on the "Effects on the Environment of the Dumping of Nuclear Wastes" dated 20th September 1989, p 9)

As to the possibility of a co-ordinated international programme for radioactive waste disposal, see the OECD Nuclear Energy Agency, "International Approaches on the use of radioactive waste disposal facilities", Radioactive Waste Management Committee, 1987 The possibility of constructing an international radioactive waste repository has also been studied by the IAEA in the context of the regional and international planning of the nuclear fuel cycle in 1977 and 1982, and by the Commission of the European Communities which recommended a regional solution to the problem of waste disposal

26 Two examples may be given on international instruments which propose notification documents, both based on the same model the Community notification document, introduced by Directive 84/631 of 6th December 1984, and the notification document included in the draft OECD international agreement on the control of transfrontier movements of hazardous wastes Article 4 paragraph 7(c) also imposes an obligation on States to require that wastes be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal

27 Examples include Decisions C(83)180(Final) and C(86)64(Final) of the OECD Council, the OECD draft international agreement and the Basel Convention

28 In 1986, the Decision C(86)64(Final) of the Council of the OECD provided for a notification obligation solely with regard to countries of transit In 1988, the OECD draft international agreement took account of the objection of countries of transit but required consideration to be taken only of objections expressed explicitly Lastly, the Basel Convention requires the prior consent of the country of transit before a transboundary movement can commence

29 Proposal for a Directive amending Directive 80/836/Euratom laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation concerning the prior authorisation for the transfer of radioactive waste, COM(90)328 Final of 25th July 1990 (OJ No C 210/7 of 23rd August 1990)

30 Decision C(83)180(Final) of the OECD Council provides that "Countries should apply their laws and regulations on control of hazardous waste movements as stringently in the case of waste intended for export as in the case of waste managed domestically" The same principle is adopted in Decision C(86)64(Final) of the OECD Council, Section 3 of the Cairo Guidelines and Principles for the environmentally sound management of hazardous wastes (Decision 14/30 of the Governing Council of UNEP dated 17th June 1987) and Directive 84/631/EEC of 6th December 1984 on the supervision and control within the European Community of the transfrontier shipment of hazardous waste

31 Safety Principles and Technical Criteria for the Underground Disposal of High Level Radioactive Wastes, IAEA Safety Series No 99, 1989

32 C(86)64(Final) of 15th June 1986

33 Section 14 of the Cairo Guidelines lists a series of objective scientific criteria on which to judge whether or not a site is satisfactory

34 Under the Basel Convention, "illegal traffic" is defined as any transboundary movement of toxic wastes without notification to the States concerned or without their prior consent or if such consent was obtained through falsification, misrepresentation or fraud Any transboundary movement that does not conform in a material way with the documents (for example where the composition of the waste does not correspond to the description contained in the documents), is also illegal

35 Paris Convention of 29th July 1960 on Third Party Liability in the Field of Nuclear Energy, which entered into force on 1st April 1968

36 Brussels Convention of 31st January 1963 Supplementary to the Paris Convention on Third Party Liability in the Field of Nuclear Energy, which entered into force on 4th December 1974

37 Vienna Convention of 21st May 1963 on Civil Liability for Nuclear Damage

38 In accordance with Article 1(b) of the Paris Convention, which provides for the possibility of excluding from the application of the Convention certain categories of nuclear substances in view of the small extent of the risks involved, the Decision of the Steering Committee of the OECD Nuclear Energy Agency of 27th October 1977 exludes substances outside a nuclear installation and whose total activity does not exceed the limits laid down in the Annex to the Decision Under this Decision, therefore, laboratory wastes the activity of which is below these thresholds are not covered by the Convention

39 The system introduced by the Vienna Convention does not provide for any such mechanism for supplementary compensation by States However, in the context of the revision of the Convention, a system for providing joint cover for risks by the nuclear industry has been proposed to ensure this additional compensation

40 Especially as regards the nature of liability several developing countries argued against a system of third party liability on the part of producers and in favour of liability of the State of export

41 This working group has already met twice - in July 1990 and March 1991 - and agreed on a series of elements which could be included in the Protocol in question

42 Proposal COM(89)282Final - SYN 217 for a Directive concerning third party liability for damage caused by waste

43 See Articles 1(a)(ii) and 1(a)(iv) of the Paris Convention and Article I 1(g) *of the Vienna Convention*

44 Cases comparable to the Goiania accident in Brazil (apparatus for radiotherapy was simply left behind in a decommissioned radiotherapy institute and picked up by inhabitants in the neighbourhood who were unaware of its exact nature and hazards, thus causing deaths and heavy irradiation in September 1987) would therefore be covered by this Convention

ANNEX

INTERNATIONAL INSTRUMENTS

RADIOACTIVE WASTE

INTERNATIONAL ATOMIC ENERGY AGENCY

Regulations for the Safe Transport of Radioactive Materials, Safety Series No 6, 1961 and revised editions, 1964, 1967, 1973 and 1985.
Directives for the Application of the IAEA Transport Regulations, Safety Series No 37, 1978
Vienna Convention of 21st May 1963 on Civil Liability for Nuclear Damage
Code of Practice on the International Transboundary Movement of Radioactive Wastes, adopted by the Board of Governors of the IAEA in June 1990

INTERNATIONAL LABOUR ORGANISATION

Convention No 115 of 1960 on the protection of workers against ionizing radiation.

EUROPEAN COMMUNITIES

Directive 80/836/Euratom of 15th July 1980 laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation (OJEC No L 246 of 17th September 1980), amended by Directive 84/467 of 3rd September 1984 (OJEC No L 265 of 5th October 1984)

OECD NUCLEAR ENERGY AGENCY

Paris Convention of 29th July 1960 on Third Party Liability in the Field of Nuclear Energy.
Brussels Convention of 31st January 1963 Supplementary to the Paris Convention on Third Party Liability in the Field of Nuclear Energy

TOXIC WASTE

UNITED NATIONS ENVIRONMENTAL PROGRAMME

Cairo Guidelines and Principles for the environmentally sound management of hazardous wastes (Decision 14/30 of the Governing Council of UNEP, dated 17th June 1987)
Basel Convention of 22nd March 1989 on the control of the transboundary movements of hazardous waste and their disposal

OECD COUNCIL ACTS

Recommendation C(76)155(Final) of 28th September 1976 on a comprehensive waste management policy
Decision-Recommendation C(83)180(Final) of 1st February 1984 on transfrontier movements of hazardous waste
Resolution C(85)100 of 20th June 1985 on international co-operation concerning transfrontier movements of hazardous wastes
Decision-Recommendation C(86)64(Final) of 5th June 1986 on exports of hazardous waste from the OECD area
Decision C(88)90(Final) of 27th May 1988 on the transfrontier movements of hazardous waste
Resolution C(89)112(Final) of 20th July 1989 on the control of transfrontier movements of hazardous waste
Decision-Recommendation C(90)178(Final) of 31st January 1991 on the reduction of transfrontier movement of hazardous waste

EUROPEAN COMMUNITIES

Directive 75/442/EEC of 15th July 1975 on waste (OJEC No L 194 of 25th July 1975), amended by Directive 91/156/EEC of 18th March 1991 (OJEC No L 78 of 26th March 1991).
Directive 78/319/EEC of 20th March 1978 on toxic and dangerous waste (OJEC No L 84 of 31st March 1978)
Directive 84/631/EEC of 6th December 1984 on the supervision and control within the European Community of the transfrontier shipment of hazardous waste (OJEC No L 326 of 13th December 1984)
Directive No. 85/469/EEC of 22nd July 1985 amending the above-mentioned Directive 84/631/EEC (OJEC No L 272 of 12th October 1985)
Directive No 86/121/EEC of 8th April 1986 amending the above-mentioned Directive 84/631/EEC (OJEC No. L 100 of 16th April 1986)
Directive 86/279/EEC of 12th June 1986 amending the above-mentioned Directive 84/631/EEC (OJEC No L 181 of 4th July 1986)
Directive 87/112/EEC of 23rd December 1986 amending the above-mentioned Directive 84/631/EEC (OJEC No L 48 of 17th February 1987)

INTERNATIONAL INSTRUMENTS COVERING ALL TYPES OF HAZARDOUS WASTE

MARINE POLLUTION

London Convention of 29th October 1972 on the prevention of marine pollution by dumping of wastes and other matter
Oslo Convention of 15th February 1972 for the prevention of marine pollution by dumping from ships and aircraft

ORGANISATION OF AFRICAN UNITY

- Resolution CM/Res 1153 (XLVIII) of the 24th Summit of the States and Governments of the Organisation of African Unity of 23d May 1988
  Bamako Convention of 29th January 1991 on the Ban on the Import of all forms of Hazardous Wastes into Africa and the Control of Transboundary Movements of Such Wastes Generated in Africa

CASE LAW AND ADMINISTRATIVE DECISIONS

CASE LAW

• *Canada*

ONTARIO HYDRO AND ONTARIO LABOUR RELATIONS BOARD V ATTORNEY GENERAL OF CANADA (1990-91) - CONSTITUTIONAL POWER OVER LABOUR RELATIONS IN THE NUCLEAR INDUSTRY

Ontario Hydro is a corporation created by a statute of the province of Ontario, and is responsible for generating and supplying electricity in that province. Of its 68 generating stations, five are nuclear and produce a little less than 50 percent of Hydro's total production of electricity The nuclear generating stations are licensed under the federal Atomic Energy Control Act, R S C 1985, c A-16 (the AEC Act) The licences include conditions relating to employees working in the nuclear facilities

This litigation arose as a result of an application for certification under the Ontario Labour Relations Act, R S O 1980, c 228, brought by the Society of Ontario Hydro Professional and Administrative Employees, to enable the Society to become the exclusive bargaining agent for the administrative, scientific and professional engineering employees of Ontario Hydro A number of employees opposed the application before the Ontario Labour Relations Board (OLRB) on the ground that some of the employees who would be covered by the proposed certification worked in Hydro's nuclear generating stations, and should therefore be subject to the federal Canada Labour Code, R S C 1985, c L-2 (the Code) and not provincial legislation

The OLRB agreed with this argument and decided that it had no jurisdiction over employees in nuclear generating stations That decision was quashed by the Divisional Court, but a majority of the Court of Appeal for Ontario, in a judgment handed down on 28th January 1991, upheld the original OLRB decision in favour of federal legislative authority, for the following reasons

Section 91 of the Constitution Act 1867, as amended, gives exclusive authority to the federal Canadian Parliament over subjects which are expressly excepted from those listed as exclusively within the power of the provinces Such an exception is to be found in Section 92(10) which gives exclusive power to the provinces to legislate in relation to "local works and undertakings other than (c) such works as, although wholly situate with the Province, are before or after their execution declared by the Parliament of Canada to be for the general advantage of Canada "

In 1946, the federal Parliament declared in the Atomic Energy Control Act that all works and undertakings involving atomic energy were "works for the general advantage of Canada", thus bringing these matters within the exclusive federal jurisdiction The successor to that provision is s 18 of the Atomic Energy Control Act 1985

In 1982, however, s 92A was added to the Constitution Act, which gave the legislature of each province exclusive authority in relation to "development, conservation and management of sites and facilities in the province for the generation and production of electrical energy"

According to the majority of the Court of Appeal (Lacourciere and Tarnopolsky JJ A), the main issue was whether s 92A removed electrical facilities from the category of works contemplated by s 92(10) so that the declaration in s 18 of the AEC Act no longer applied to Ontario Hydro's nuclear generating facilities They decided that it did not do so Rather s 92A had to be read in the light of the other provisions of the Constitution, notably ss 91 and 92, and did not override federal powers granted in those provisions Indeed, the record of the debates indicated that the drafters of s 92A did not intend to grant to the provinces jurisdiction over works already declared to be for the general advantage of Canada, and presumed that federal jurisdiction over atomic energy would continue notwithstanding the amendment

Further, the Court found that there was a distinction between activities concerning facilities for the generation and supply of electrical energy, referred to in s 92A(1)(c) (i e development, conservation and management), and the character or nature of those facilities as local works, referred to in s 92(10) Nothing in s 92A(1)(c) suggested that it was intended to grant the province absolute legislative competence over the physical works for electrical generation

Previous cases had established that s 18 of the AEC Act was a valid declaration pursuant to s 92(10) Since s 92A had not removed electrical generating "works" from the category of "works" contemplated in s 92(10), there was nothing to preclude the declaration in s 18 of the AEC Act from applying to Hydro's nuclear facilities Moreover even if s 92A had derogated from s 92(10), Parliament's jurisdiction over Hydro's nuclear facilities could be founded in its general power to make laws for the peace, order and good government of Canada, since, as previous cases had established, "atomic energy" was a subject-matter beyond local or provincial concern and of concern to the country as a whole Section 92A did not detract from the scope of that general power

Arguments based on the fact that Ontario Hydro was a provincial instrumentality of a public nature and therefore presumed immune from federal

legislation were rejected. The AEC Act made clear the intention of Parliament to regulate activities within federal jurisdiction, including those of provincial instrumentalities, and provided the federal legislation was a valid exercise of Parliament's powers, Ontario Hydro, notwithstanding its public nature, was not immune from the application of federal legislation

Therefore, in the view of the Court, the federal Parliament had legislative authority over Ontario Hydro's nuclear facilities The remaining issue was whether this extended to labour relations in those facilities Generally, the regulation of labour relations is a matter within provincial jurisdiction, but the majority of the Court found that the regulation of atomic energy, as a matter of national concern, must include labour relations in Ontario Hydro's nuclear facilities, in spite of the practical difficulties this decision might cause The powers granted to the federal Atomic Energy Control Board, as well as the actual exercise of those powers in issuing licences to Hydro's nuclear works - licences which provide for the regulation of employment of persons at nuclear stations as well as the operation of the works as a whole - firmly establish the intricate link between the safe and effective operation of the nuclear facilities and the necessity of Parliamentary control over persons employed at Hydro's nuclear facilities Accordingly, federal Parliament's authority to regulate nuclear works includes labour relations

Similarly, a valid declaration under s 18 extends federal legislative jurisdiction not only to the works themselves, but also to matters affecting the employment of persons engaged on such works, such as working conditions and labour relations The federal Canada Labour Code expressly applies to all employees employed upon or in connection with works that are declared to be for the general advantage of Canada The declaration under s 18 of the AEC being valid, therefore, it follows that Ontario Hydro's employees working in or in connection with nuclear facilities must be governed by the Code

One judge disagreed He accepted that regulation of atomic energy falls within the sphere of federal legislative competence, but did not agree that this gave the federal Parliament authority over labour relations in this case He considered that Hydro was essentially a provincial undertaking, only part of one of its many activities being within the federal sphere of legislative competence Labour relations generally fall within the exclusive jurisdiction of the provinces, except when they are "an integral part, and essential part or a vital part" of federal Parliament's primary and exclusive jurisdiction over some other class of subject, in this case the power to regulate atomic energy at Hydro's nuclear generating sites Since its establishment, labour relations between Hydro and all of its employees, including those working on or in connection with its nuclear stations, had always been regulated by the Ontario Labour Relations Act This had in practice proved to be compatible with the federal regulation of atomic energy The exception to the general rule was therefore not applicable and the general rule that labour relations fall within the exclusive jurisdiction of the provincial legislature applied

Further, if labour relations are a vital part of management, then labour relations of a provincial undertaking, such as Hydro, should be regulated provincially The successful management of an organisation such as Hydro requires control over its operation as a whole and over all of the constituent parts and segments making up that whole Division of Hydro's labour relations into two separate jurisdictions would cause serious practical difficulties

The doctrine of federal paramountcy which renders inoperative provincial legislation which is inconsistent with a federal statute does not apply in this case There is no inconsistency between the the AEC Act and the Ontario Labour Relations Act which have both been applied without conflict for 25 years It is possible to arrive at a reasonable and practical construction of the two statutes so as to reconcile their respective powers and to give effect to them all

• Germany

FEDERAL CONSTITUTIONAL COURT RULES ON THE COMPETENCE OF THE FEDERAL STATE IN RELATION TO THE LANDER IN THE FIELD OF NUCLEAR LAW (KALKAR REACTOR CASE) 1990

The fast breeder prototype reactor (SNR-300) situated at Kalkar in the Land North Rhine Westphalia, Germany, is an international project, set up by an agreement concluded between the Federal Republic of Germany, Belgium and the Netherlands in 1967 The project has been mainly financed by Germany, with a lesser participation (about 15 percent) by Belgium and the Netherlands and, since its construction began in the early seventies, it has been the subject of litigation (see Nuclear Law Bulletin Nos 20, 21 and 23) Construction of the fast breeder reactor was completed five years ago, and one of the two last partial licences required for start up was a fuel loading licence The licensing authority is the Land North Rhine Westphalia, which refused to grant the licences The case was referred to the Federal Constitutional Court by the Land and the Court recently ruled on the competence of the Federal State in relation to the Länder (States) with regard to the Kalkar reactor The facts of the case are analysed in the following paragraphs

The Federal Constitutional Court by judgment of 22nd May 1990 (2 BvG/88, not yet officially published, unofficial publications in legal journals, e g Deutsches Verwaltungsblatt 1990 p 763) developed general rules on the relationship between the Federal State and the Länder in the context of the so-called "Bundesauftragsverwaltung" (a harmonized division of powers) according to Article 85 of the Basic Law (Grundgesetz Constitution) That Article provides for the possibility of organising state administration in a way which gives the Länder the primary competence to administer a matter, but which authorises the Federal State to supervise the Länder administration The Federal State has the right to control the Lander administration and in particular, to assess whether it is legal and expedient To attain this object, the Federal State can issue binding directives and administrative rules

That type of administration, i e. the division of powers or Bundesauftragsverwaltung has been selected for the main uses of nuclear energy, as provided by Section 24(1) of the Atomic Energy Act[1]

The case at stake in the decision of the Court is a conflict between the Federal State and the Land North Rhine Westphalia concerning the licensing of the Kalkar reactor In the course of the reactor's licensing procedure, the Land North Rhine Westphalia, as the competent licensing authority, refused to grant the last two partial licences which would allow operation of the reactor After the accident in 1986 at Chernobyl, USSR, the Land had considered that additional safety assessments were necessary so as to ensure safe operation of the reactor The Federal Minister of the Environment, Nature Conservation and Reactor Safety argued on behalf of the Federal State that the safety concept of the reactor had been sufficiently evaluated in seventeen partial licences since 1972 The assessments included core melting incidents and, in particular, the so-called Bethe-Tait-Incident (power excursion) to which the Land had referred Therefore, the Minister could not see a reason for again assessing the safety of the Kalkar reactor Consequently - after several discussions with the Land authorities - he directed those authorities to comply with his evaluation and to grant the missing partial licences This was when the Land North Rhine Westphalia brought the case to the Federal Constitutional Court alleging that the directive of the Federal State infringed upon the Constitutional rights of the Land The Court dismissed the action of North Rhine Westphalia

The reasoning of the Court can be summarised as follows

- In the field of Bundesauftragsverwaltung (division of powers), the Länder have irrevocable competence to conduct the administration (Wahrnehmungskompetenz), however, the Federal State has ultimate responsibility for that administration (Sachkompetenz)

- A directive issued by the Federal State in accordance with Article 85 para 3 of the Basic Law does not infringe upon the constitutional rights of a Land unless the claim to issue a directive is not in line with the Constitution

- The Land has no right to bring an action against the Federal State when it issues a directive in accordance with constitutional powers and in line with the relevant legal framework The right of the Federal State to issue directives is limited only to most extreme cases of disregard of legal duties which cannot be accepted because they jeopardise important, legally protected rights

- A directive must be clear, which means that its adressee must be able to understand its meaning

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1 Section 24(1) "All other administrative functions under Chapter II and any regulations made thereunder shall be performed by the Lander on behalf of the Bund (Federal State) "

- When exercising its right to issue directives, the Federal State must give due regard to the federative system and its mutual balances (bundesfreundliches Verhalten) Therefore, except in urgent cases, the Federal State must inform the Land of the fact that it is considering the possibility of issuing a directive and give that Land the opportunity to comment on the matter prior to issue of the directive concerned

- Legal limits of state activities in relation to the rights of individuals do not apply to the Federal State/Land relationship in the scope of the constitutional distribution of powers This applies in particular, with respect to the principle of reasonableness (Grundsatz der Verhältnismässigkeit)

It should be noted that the Constitutional Court's decision has not, in practice, resulted in clearing up the legal imbroglio blocking the commissioning of the Kalkar reactor because the German authorities and companies responsible for the project decided to terminate it on 20th March 1991

• *United States*

NUCLEAR INFORMATION AND RESOURCE SERVICE, ET AL V NRC - REVIEW OF LICENSING PROCEDURES (1990)

On 2nd November 1990, the US District Court for the District of Columbia Circuit delivered its judgment in this case, finding that two subsections of Part 52 of the regulations promulgated by the Nuclear Regulatory Commission were contrary to the Atomic Energy Act and therefore invalid Part 52 was a substantial revision of licensing procedures for nuclear power plants, adopted in 1989 after lengthy deliberations.

Sub-part C of Part 52 provided for "combined licences", that is a construction permit combined with a conditional operating licence, to be issued after a public hearing Upon completion of construction, and provided the standards specified in the combined licence ("acceptance criteria") had been met, the Commission would authorise operation However, after construction an interested party could file a petition to prevent authorisation to operate from being given If the petition was based on an allegation that the acceptance criteria had not in fact been met, and if the Commission found that "genuine issues of material fact" were raised and certain other conditions were met, then it was obliged to hold a hearing. The Court upheld the validity of these conditions, calling them "reasonable limitations"

Any other form of petition was to be treated as a request that the terms and conditions of the combined licence be modified In that case, the Commission was not obliged to hold a hearing, and was required only to "consider the petition and determine whether any immediate action is required"

The Court found that Section 185 of the Atomic Energy Act requires the Commission to make a finding after construction and before operation that the nuclear plant will operate in conformity with the Act Further, Section 189(a) requires it to provide an opportunity for a hearing to consider significant new information that has come to light since the initial combined licence was issued and which may have an effect on its finding under Section 185 Under Part 52, although there was a right to a hearing on compliance with the acceptance criteria, there was no right to a post-construction hearing on request as to whether the acceptance criteria themselves still satisfied the requirements of the Act, in the light of new information about plant design, siting or operation The relevant provisions [10 C F R 52 103(b)and (c)] were therefore contrary to the Act and so invalid

The Court did however uphold the validity of the system of combined licences established by Part 52, thus allowing most safety issues to be determined before construction of the plant

The NRC appealed, and on 27th March 1991, the US Court of Appeals for the District of Columbia ordered this decision vacated and agreed that the case should be reheard before the full Court

PROCEDURES FOR LICENSING HEARINGS - UNION OF CONCERNED SCIENTISTS V NRC (1990)

On 30th November 1990, the U S District Court for the District of Columbia considered a petition by the Union of Concerned Scientists (UCS) for review of a Nuclear Regulatory Commission rule which increases the degree of specificity required in pleadings filed by parties seeking to intervene in licensing hearings U C S contended that the rule on its face violates the Atomic Energy Act, the National Environmental Policy Act (NEPA), and the Administrative Procedure Act (NEPA), and the Administrative Procedure Act (APA)

In the NRC licensing process, utilities seeking to construct or operate a nuclear power plant must file a licence application and detailed health, safety, and environmental submissions with the NRC The NRC staff then studies the applicant's submissions and compiles a Safety Evaluation Report (SER) and the environmental documents required by NEPA Interested parties may request or move to intervene in a hearing within 30 days of the filing of the application Shortly after making such a request or motion, and well before the NRC staff completes the SER or NEPA documents and releases them publicly, a party must file a pleading listing its "contentions", that is, what it seeks to litigate in the hearing

Any party that files at least one admissible contention within the time limit may participate in the hearing Previously, prospective intervenors had only to set forth the bases for contentions with "reasonable specificity" The new NRC rule is more stringent It requires that contentions consist of "a specific statement of the issue of law or fact to be raised or controverted",

that they detail the alleged facts or opinion on which the prospective intervenor will rely, and they "show that a genuine dispute exists with the applicant on a material issue of law or fact" As the NRC recognized that this would have to be done before the NEPA reports are released, the rule further provides that with respect to environmental issues "the petitioner shall file contentions based upon the applicant's environmental report and can amend those contentions or file new contentions if there are data or conclusions in the NEPA reports that differ significantly from the data or conclusions in the applicant's document" Intervenors who have raised issues within the time limits and who have been admitted to the hearing are thus entitled to incorporate new evidence raised in the SER and the NEPA reports bearing on those issues

In promulgating the new rule, the NRC also made clear that it had not changed its 17 year-old rule with respect to contentions filed after the deadline Under that rule, parties who file contentions late are not automatically granted access to the hearing even if their contentions are otherwise acceptable under the NRC admissibility criteria, instead, they are admitted on the basis of a discretionary, five-factor balancing test. This test applies fully even in cases where contentions are filed late only because the information on which they are based was not available until after the filing deadline, the NRC has ruled that while the first factor - good cause for filing late - is by definition met in such circumstances, the other four factors, if present, permit the denial of intervention in a given case

The sole question presented by the U C S petition for review was whether the new contentions rule is on its face "not in accordance with law", 5 U S C Section 706(b) U C S did not, however, contend that the more stringent pleading requirement, standing alone, would be illegal Its position was rather that the new rule's operation in conjunction with the longstanding late-filing rule denies it the ability fully to litigate challenges to licences, and that the combination of the rules therefore violates the Atomic Energy Act, the APA, and NEPA It argues that the NRC may not apply the final four factors of the late-filing balancing test whenever there is good cause for the late filing due to the unavailability of information, but must instead admit as of right contentions filed late for this reason

The District Court held that the NRC rules at issue were consistent with the Atomic Energy Act, the APA and NEPA Although hypothetical applications of the NRC rules might transgress those statutes, the Court thought it inappropriate to anticipate them in resolving the petitioner's challenge to the rules

The Court considered that in order to success in its claim that the NRC is bound to conduct its proceedings in the particular manner it advocates, U C S must point to a statute specifically requiring that procedure for "absent constitutional constraints or extremely compelling circumstances" courts are never free to impose on the NRC (or any other agency) a procedural requirement not provided for by Congress U C S focused on Section 189(a) of the Atomic Energy Act, which provides that "in any proceeding under this chapter, for the granting, suspending, revoking, or amending of any licence the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding" 42 U S C Section 2239(a)

The Court rejected the U C S. argument that, under the "plain meaning" rule, the NRC may not exclude a late-filed contention raising "information" first brought to light by the staff documents on grounds (contained in its five-factor balancing test) that the late-filing party's interest will be protected by other means, that the party's participation is not necessary to develop a sound record, that the party's interest is represented by other parties to the hearing, or that the party's participation will delay the proceeding This argument was based on the syllogism (1) under Section 189(a), any party has a right to a hearing on any material issue, (2) much material information bearing upon a licensing decision will not be apparent before the SER and NEPA documents are completed and made public and so cannot be raised in a timely fashion with the specificity the NRC now demands, and therefore (3) by subjecting late-filed contentions incorporating this information to a balancing test for admission, the late-filing rule and NRC'S interpretation of it illegally place at the NRC's discretion that to which parties have an absolute right under Section 189(a)

INTERNATIONAL UNION, UNITED AUTOMOBILE AEROSPACE AND AGRICULTURAL IMPLEMENT WORKERS OF AMERICA, UAW, ET AL V JOHNSON CONTROLS, INC (1991)

This recent case did not directly involve the nuclear industry, but it gave the US Supreme Court the opportunity to interpret the US legislation on sex discrimination in the context of occupational exposure to dangerous substances of women employees who are or may become pregnant The decision therefore has important implications for any industry in which employers may seek to limit the exposure of foetuses to harmful substances by controlling the exposure of their women employees

In the context of US nuclear regulation, the NRC's recent revision of 10 CFR Part 20, Standards for Protection against Radiation (which will be summarised in a forthcoming issue of the Nuclear Law Bulletin) is consistent with the Supreme Court's decision in this case Part 20, which now makes no distinction between the sexes with respect to allowable radiation exposures, will require licensees to limit to no more than 0 5 rem (5mSv) during the entire pregnancy the exposure of the foetus of a "declared pregnant woman", i e a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception

The Supreme Court case involved Johnson Controls Inc, a battery manufacturer A primary ingredient in the manufacturing process is lead, occupational exposure to which entails health risks, including the risk of harm to any foetus carried by a female employee The company barred all women, except those who had medical certificates proving they were infertile, from jobs involving actual or potential exposure to lead above the level judged by the Occupational Safety and Health Administration to be critical for a worker planning to have a family.

The Supreme Court on 20th March 1991 upheld a claim that this policy constituted sex discrimination, contrary to Title VII of the Civil Rights Act of 1964, as amended by the Pregnancy Discrimination Act It held that an employer may not exclude a fertile female employee from certain jobs because of its concern for the health of the foetus the woman might conceive

The reasoning of the Court was, in summary, as follows The company's policy clearly discriminated against women The Court found particularly significant the fact that the policy did not apply to male employees in the same way as to females, despite evidence that lead exposure also harmed the male reproductive system The fact that the policy was based on an ostensibly benign motive did not save it from being intentionally discriminatory As such, under the legislation it could be defended only as a "bona fide occupational qualification reasonably necessary to the normal operation of that particular business or enterprise"

That defence did not apply in this case, since it allows an employer to discriminate against a woman because of her capacity to become pregnant only if her reproductive potential prevents her from performing the duties of her job. In fact, fertile women work in the business concerned as efficiently as anyone else The company's professed concerns about the welfare of the next generation do not suffice to establish a bona fide occupational qualification of female sterility Title VII, as amended by the Pregnancy Discrimination Act, requires decisions about the welfare of future children to be left to the parents who conceive, bear, support, and raise them rather than to the employers who hire those parents or the courts

The Court also considered that the likelihood of an employer being found liable for potential foetal injuries was very remote if the employer had not been negligent, had warned the woman of the risk, and was forbidden by law from adopting discriminatory policies such as the one in this case The employment of fertile women does not therefore increase costs so substantially as to justify a discriminatory policy

ADMINISTRATIVE DECISIONS

• *European Communities*

DECISION ON ANF LINGEN RELATING TO A PROCEDURE IN APPLICATION OF ARTICLE 83 OF THE EURATOM TREATY (1990)

The Commission of the European Communities on 1st August 1990 adopted a decision imposing sanctions under Article 83 of the Euratom Treaty

The German company, Advanced Nuclear Fuels GmbH ('ANF Lingen') is an undertaking subject to the provisions of Chapter VII, Title Two, of the Euratom Treaty, Commission Regulation (Euratom) No 3227/76 of 19th October 1976 concerning the application of the provisions on Euratom safeguards (see Nuclear Law Bulletin No 19), as amended by Regulation (Euratom) No 220/90 of 26th January 1990, and to the Commission Decision of 5th June 1985 laying down the particular safeguards provisions for this undertaking

In 1990, the company imported certain nuclear material from the United States Through inadvertence, part of this material was not unpacked and was re-exported to the United States in a container which was taken to be empty As a result, the company failed to meet the obligations relating to export of such material - particularly in relation to notification and record-keeping - imposed by the instruments already mentioned

Under Article 83(1) of the Treaty, the Commission may impose on persons or undertakings which infringe their obligations the following sanctions, in order of severity

a) a warning,

b) the withdrawal of special benefits such as financial or technical assistance,

c) the placing of the undertaking for a period not exceeding four months under the administration of a person or board appointed by common accord of the Commission and the State having jurisdiction over the undertaking,

d) total or partial withdrawal of source materials or special fissile materials

The Commission decided that a warning would be inappropriate given the serious nature of the infringements, even though the undertaking had notified safeguards authorities that it intended to enforce new internal regulations on management and handling of materials So as to ensure that appropriate measures were clearly drawn up regarding working practices and their implementation, the Commission decided to place the undertaking under administration in accordance with Article 83(1)(c) for four months The administration is limited to aspects connected with the safeguards mentioned in Chapter VII, Title Two, of the Treaty It is in no way to affect the responsibility of the undertaking under national or international law

The task of the person or board, to be appointed by agreement of the Commission and the FRG, is to

- check and, if necessary, amend the internal regulations in the field of safeguards,

- supervise their implementation and monitor their application

The decision also provides that in order to perform this task the person(s) appointed should have:

- access to all documents and offices,

- the power to give any instructions whatsoever to the management or staff of the undertaking,

- the right to solicit or request any help from outside sources which may be required for the satisfactory performance of the above task

An assessment report is required to be presented to the Commission within eight days of the completion of the task

NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

• Belgium

RADIATION PROTECTION

Amendment of the 1958 Radiation Protection Act (1989)

The Act of 29th March 1958 on protection of the population against the hazards of ionizing radiation was amended by an Act of 22nd December 1989, published in the Moniteur Belge of 30th December 1990 (the text of the Act as amended on 14th July 1983 is reproduced in Nuclear Law Bulletin No 33)

The amendments further specify the tasks of persons responsible for ensuring that the Act and its implementing Orders are complied with These persons have access to plants, warehouses, hospitals, etc where apparatus or substances capable of emitting ionizing radiation are held or used They may seize the apparatus or substances which do not meet the requirements laid down by the Act and its implementing Orders

The Act specifies in particular that such persons perform their surveillance duties in accordance with the provisions of the Act of 16th November 1972 on social inspections

Royal Order amending the 1946 General Regulations on Safety at Work (1990)

A Royal Order of 5th December 1990 has amended the provisions of the General Regulations of 1946 on Safety at Work, with respect to protection of workers against the hazards of ionizing radiation (published in the Moniteur Belge of 20th December 1990)

The purpose of the Order is to implement on a national level the European Community Radiation Protection Directives These are the Council of the European Communities' Directive No 80/836 Euratom of 15th July 1980 laying down basic safety standards for the health protection of the general public and workers against the hazards of ionizing radiations, amended by Directive No 84/467 Euratom of 3rd September 1984, and Directive No 84/466 Euratom of 3rd September 1984 laying down basic measures for the radiation protection of persons undergoing medical examination or treatment (see Nuclear Law Bulletin Nos 25,26,34)

REGIME OF RADIOACTIVE MATERIALS

Royal Order amending the General Regulations of 1963 for Protection of the Population and Workers (1991)

A Royal Order of 12th February 1991 adds a new Section 37 ter to the General Regulations for Protection of the Population and Workers against the Hazards of Ionizing Radiation of 28th February 1963 (see Nuclear Law Bulletin Nos 36, 39)

The amendment concerns authorisations to have access to certain premises and to remain there It is specified that, without prejudice to the provisions of the Royal Order of 1956 concerning implementation of the Act of 1955 on State security in the nuclear field, it is forbidden to enter grounds or buildings referred to in the above Royal Order without having been expressly authorised to do so by the head of the undertaking or his delegate.

Officials responsible for surveillance are not required to obtain the mandatory authorisation provided for under the new Section

• Czechoslovakia

RADIATION PROTECTION

Regulation on protection against electromagnetic radiation (1990)

Regulation No 408/1990 by the Ministry of Health provides for health protection against the harmful effects of electromagnetic radiation (photons, gamma-rays, X-rays, etc). It sets out the requirements to be complied with when working in electromagnetic fields In particular, it lays down the conditions for the development, construction, production, import, assembly, repair, testing, operation and use of high and ultra high frequency generators and facilities containing them

Regulation on protection against exposure to radon and other natural radionuclides (1991)

Regulation No 75/1991 by the Ministry of Health lays down the requirements for reducing radiation from radon and other naturally-occurring radionuclides It provides for the conditions to be complied with for protection against internal exposure from inhalation of radon and its products inside buildings and against external exposure due to gamma-rays from natural radionuclides in building materials

REGIME OF RADIOACTIVE MATERIALS

Regulation on quality assurance of equipment (1990)

Regulation No 436/1990 by the Atomic Energy Commission provides for the quality assurance of equipment from the viewpoint of nuclear safety The Regulation sets out the basic requirements for the quality assurance of machinery, materials, building materials, technological management systems, electrical power supply systems, etc

The equipment is divided into three classes, according to its significance as regards nuclear safety, and requirements for quality assurance correspond to this categorisation

THIRD PARTY LIABILITY

Act to amend the Economic Code providing for liability (1990)

Act No 109/1990 amends the Economic Code (Act No 109/1964, as amended) and repeals Government Decree No. 40/1963 and Government Ordinance No 46/1967 concerning particularly dangerous operations and establishing liability therefor (see Nuclear Law Bulletin No 45) This Act adds a new Section 145a to the Economic Code which covers liability for nuclear damage This provision is based on the operator's absolute and unlimited liability, and deals with economic questions Third party liability for nuclear damage is regulated by provisions concerning liability for dangerous operations contained in the Civil Code (Section 432 of Act No 40/1964, as amended)

REGULATIONS ON NUCLEAR TRADE

Act on control of products and technologies (1990)

Act No. 547/1990 concerns the control of products and technologies It lays down the conditions for the export, import and use of controlled products and technologies listed in special regulations The provisions cover products and technologies used for nuclear activities

The Act provides for their control, including customs checks The export, import, etc of such products and technologies requires a special licence issued by the Federal Ministry for Foreign Trade Customs authorities may impose a fine of up to 10 million Czechoslovak crowns (approximately $400 thousand) for their unauthorised use or a fine amounting to five times their value

• Denmark

RADIATION PROTECTION

Order on smoke detectors and consumer articles containing radioactive materials (1990)

Order No 154 of 6th March 1990 was published in Lovtidende Part A, 1990 and entered into force on 1st April 1990.

The Order implements in particular the provisions contained in the Council of the European Communities' Directive No 80/836 Euratom of 15th July 1980 laying down revised basic safety standards for health protection of the general public and workers against the dangers of ionizing radiation, as amended by Directive No 84/467 Euratom of 3rd September 1984 Several Orders have already been made in Denmark in implementation of the radiation protection Directives (see Nuclear Law Bulletin Nos 39 and 45)

Order on dose monitoring of workers exposed to ionizing radiation (1990)

Order No 821 of 7th December 1990 was published in Lovtidende Part A, 1990 and entered into force on 1st January 1991

This Order has also been made in implementation of the above-mentioned European Communities' Council Directives on radiation protection It lays down the technical standards to be observed regarding dosimetry and provides inter alia, for dosimetric control by thermoluminescent dosimetry for personal and environmental monitoring

• Finland

GENERAL LEGISLATION

Council of State Decisions on the safe use of nuclear power (1991)

The 1987 Nuclear Energy Act (No 990/87), which entered into force in 1988, defines general principles, conditions and requirements regarding the use of nuclear power (see Supplement to Nuclear Law Bulletin No 41 for text of the Act) The Act provides that the use of nuclear power should be safe and that safety and contingency systems should be sufficient to this effect It further provides that general rules on the safe use of nuclear power and on security arrangements at nuclear power plants and contingency plans are to be laid down by the Council of State (the Government)

Accordingly, on 14th February 1991, the Council of State issued the following rules

- General Rules for the Safety of Nuclear Power Plants (No 395/91)

- General Rules for the Safety of Facilities for the Final Storage of Power Plant Wastes (No 398/91)

- General Rules for Security Arrangements at Nuclear Power Plants (No 396/91)

- General Rules for Contingency Plans at Nuclear Power Plants (No 397/91)

These Rules entered into force on 1st March 1991

The Rules for the Safety of Nuclear Power Plants and Final Waste Storage Facilities contain limits for emissions of radioactive substances and radiation exposure as well as requirements for the safe planning, building and use of nuclear power plants and final waste storage facilities The Rules take into account international experience and research on risks associated with the use of nuclear power in recent years, as well as methods and measures to contain those risks in all circumstances

The Rules for Security Arrangements at Nuclear Power Plants provide for measures to be taken by plant owners to thwart unlawful activities aimed at plants The most important of these are the Rules on planning and implementing security systems and the Rules on actions to be taken in dangerous situations

The Rules for Contingency Plans provide for measures to be taken by plant owners to contain nuclear damage resulting from an accident The most important of these are the Rules for planning contingency arrangements and for keeping them operational and the Rules on actions to be taken in emergency situations

RADIATION PROTECTION

The Radiation Act 1991

A new Finnish Radiation Act was issued on 27th March 1991 and will enter into force on 1st January 1992 The scope of the Act is extensive as, in addition to ionizing radiation, it will also apply to activities involving exposure to natural radiation and non-ionizing radiation Its purpose is to prevent and restrict harmful effects to health resulting from radiation

The basic principles of the Act are that

- the practice involving radiation should be justified,

- radiation protection should be optimized,

- radiation doses should be as low as reasonably achievable

Licensed organisations using radiation will be responsible for the safety of the activity involving exposure to radiation and for having available the appropriate expertise to this effect. The required so-called safety licence provides the regulatory control to ensure that radiation is used sensibly, that the equipment and shields are technically acceptable and the operating personnel is competent, and that the radioactive waste is dealt with appropriately

The Radiation Act will also apply to nuclear activities within the scope of the 1987 Nuclear Energy Act (the text of latter Act is reproduced in the Supplement to Nuclear Law Bulletin No 41)

• France

THIRD PARTY LIABILITY

Entry into force of the 1990 Act amending the Act on Nuclear Third Party Liability (1991)

The 1982 Protocol to amend the Paris Convention of 1960 was published by Decree No 91-27 of 4th January 1991 (Journal Officiel de la Republique Française of 11th January 1991). Publication of this Protocol, ratified by France on 6th July 1990, brought into force Act No 90-488 of 16th June 1990 amending the 1968 Act on Third Party Liability in the Field of Nuclear Energy. Section 14 of the 1990 Act provides that it shall enter into force on the date the Protocol is published (an analysis of the new Act is provided in Nuclear Law Bulletin No 46, the text of the 1968 Act,as amended, is reproduced in the Supplement to that same issue)

Henceforth, the amounts of security and insurance to be taken out by operators of nuclear power plants are those laid down by the new Act, their liability has been raised to 600 million French francs Nuclear operators must cover these new amounts of liability within three months of the entry into force of the new Act

REGULATIONS ON NUCLEAR TRADE

Notice to importers and exporters on products and technologies subject to final destination control (1990)

In order to avoid the proliferation of nuclear weapons, the French Administration exercises strict controls over imports and exports of sensitive products, materials and equipment To this effect, lists of such products,

equipment, etc are published as notices in the Official Gazette (Journal Officiel), and regularly revised This notice, published on 21st December 1990, adds to the list published on 29th November 1990 (Administrative Documents Series No 98) fourteen articles related to nuclear materials and equipment. These include deuterium, nuclear grade graphite, certain lithium, hafnium, beryllium and tritium compounds, certain materials for nuclear heat sources, for fuel element fabrication and for reprocessing spent fuel assemblies, nuclear reactors and their equipment, etc

• Germany

RADIATION PROTECTION

Ordinance on Drinking Water (1990)

A revised and consolidated version of the above Ordinance, dated 5th December 1990, was published in Bundesgesetzblatt - BGBl - 1990 I, p 2612, 1991 I, p 227 (corrigendum) The new Ordinance prescribes that water for drinking purposes must not contain radioactive substances if the concentration of such substances is capable of affecting human health The amendment to the Ordinance entered into force on 1st January 1991

Amendment of 1987 X-ray Ordinance (1990)

The X-ray Ordinance of 8th January 1987, last amended on 3rd April 1990 (see Nuclear Law Bulletin Nos. 39 and 46), was again amended by an Ordinance of 19th December 1990 (BGBl 1990 I, p.2949)

New Sections (23a and 45a) have been added to the Ordinance to provide for special transitory provisions for X-ray facilities and personnel in the new Länder (the former German Democratic Republic; see Nuclear Law Bulletin No 46 for explanatory note on the German unification) The purpose of the amendments, which entered into force on 29th December 1990, is to fix the limits and conditions to be met for continuing the operation of these X-ray facilities

Ordinance on Maternity Protection of Female Military Personnel (1990)

The above Ordinance of 22nd December 1990 was published in Bundesgesetzblatt 1990 I, p 3015 It prohibits the exposure of pregnant personnel to radiation It provides that such women must not work in "controlled areas", namely areas where use is made of ionizing radiation, radioactive substances and X-ray equipment

Amendment of Ordinance on Maternity Protection of Female Civil Servants (1991)

An amended and consolidated version of the Ordinance of 17th December 1985 on the protection of pregnant civil servants was issued on 11th January 1991 (BGBl 1991 I, p 125) It provides that such women must not work in areas where occupational diseases may be caused by radiation. This text entered into force on 1st February 1991

TRANSPORT OF RADIOACTIVE MATERIALS

Ordinance bringing into force amendments to the CIM and the CIV Conventions (1990)

Both the International Convention concerning the Carriage of Goods by Rail (CIM) and the International Convention concerning the Carriage of Passengers and Luggage by Rail (CIV) cover the transport of radiactive materials These Conventions were amended by the Revision Commission at a meeting held in Berne from 14th to 21st December 1989 By Ordinance of 19th December 1990 (BGBl 1990 I, p 1662) these amendments were brought into force in Germany

THIRD PARTY LIABILITY

Act on Environmental Liability (1990)

An Act on Liability for Damage to the Environment was issued on 10th December 1990 and entered into force on 1st January 1991 (Bundesgesetzblatt 1990 I, p 2634). The Act imposes strict (no fault) liability on the operators of certain installations listed therein for damage caused by effects to the environment originating from such installations The Act does not channel liability solely onto the operator and leaves other legal grounds for liability untouched It is expressly provided that the Act does not apply to damage caused by a nuclear incident falling within the scope of the Atomic Energy Act further to the Paris Convention on Third Party Liability in the Field of Nuclear Energy

Nevertheless, the Act is relevant also for nuclear operators The above-mentioned list of dangerous installations expressly includes cooling towers as parts of nuclear reactors or spent fuel reprocessing installations Furthermore, certain equipment in nuclear fuel fabrication plants, in installations for uranium enrichment and in facilities for the handling and storage of uranium hexafluoride containers, and for the storage of nuclear fuel and nuclear waste are also included in dangerous activities listed in the Act As a result, if the environment is affected by non-nuclear damage stemming from activities involving such towers and equipment, the nuclear operator will be held liable under the Act It should be noted that the provision in the Paris Convention [Article 3(b)] specifying that when nuclear and non-nuclear damage cannot be reasonably separable, such damage is considered nuclear remains untouched

The Act applies to damage caused by materials, concussion, noise, pressure, radiation, gas, vapour, heat or other effects, which have spread in the ground, air or water. So as to facilitate action against an operator, it is provided that if damage has been suffered, and if an installation, in the circumstances of the particular case, was generally capable of causing that damage, then it is presumed that it was that installation that in fact caused the damage This presumption does not apply if the installation was being operated in accordance with its licence and any other conditions imposed by authorities and if nothing untoward had occurred in its operation The victim has a right to be informed by the operator and the competent authority of all the facts he needs to substantiate his claim for compensation

The liability of the operator is limited to 160 million DM for personal injury and also for damage to property Where damage to property impairs the environment at the same time, the operator has to pay the costs of reinstatement, even if such costs exceed the value of the damaged property The operators of the types of installation listed in annex to the Act must provide and maintain financial security to cover their liability thereunder

Finally, there is one single competent court for actions against the operator, that of the place where the detrimental effect to the environment is caused by the installation

REGULATIONS ON NUCLEAR TRADE

Ordinance to amend the Export List (1990)

The so-called Export List (Annex AL to the Foreign Trade Ordinance), last amended by Ordinance of 4th October 1990 (Bundesanzeiger - BAnz - No 187 of 6th October 1990, p 5261) was again amended by an Ordinance of 27th November 1990 and an Ordinance of 18th December 1990 (BAnz No 233a of 15th December 1990 and BAnz No 238 of 22nd December 1990 respectively) The list enumerates those goods and technologies whose foreign trade is restricted by the Foreign Trade Ordinance This list includes the "Nuclear Energy List" (Kernenergieliste) which refers to materials, goods, installations, procedures and technologies connected with the use of nuclear energy. The export of those goods and technologies must meet special requirements, in accordance with the Foreign Trade Act and Ordinance

Act to tighten controls over foreign trade amending the Atomic Energy Act (1990)

The Act of 5th November 1990 to tighten controls over foreign trade and to prohibit atomic, biological and chemical (ABC) weapons (BGBl 1990 I, p 2428) (also see below) amends the Atomic Energy Act (see Supplement to Nuclear Law Bulletin No 36 for text of the Act, see also Bulletin No 44) The amendment provides that the competent Minister (the Federal Minister of the Environment, Nature Conservation and Reactor Safety) is now authorised to inform the appropriate authorities of any facts which become known to him in

connection with the nuclear licensing procedure, arousing suspicion of an infringement of the Foreign Trade Act This express authorisation was required to conform to the terms of data protection legislation

Amendment of Act on Control of Military Weapons (1990)

The above Act, made in implementation of Section 2, paragraph 2 of the Basic Law (Grundsgesetz the Constitution), was also amended by the above Act of 5th November 1990 to tighten controls over foreign trade and to prohibit ABC weapons The consolidated new version of this Act was published on 22nd November 1990 in BGBl 1990 I, p 2506 The purpose of the amendment is to improve the existing provisions on controlling the production of, and trade in military weapons, including nuclear weapons and other nuclear military devices Henceforth it is forbidden to develop, produce, transport (which includes transit), import, export, trade in or possess nuclear weapons The Act, as amended, entered into force on 11th November 1990

• *Ireland*

RADIATION PROTECTION

European Communities (Ionizing Radiation) Regulations, 1991

The above Regulations (S I No 43 of 1991) were made by the Minister for Energy on 5th March 1991 and entered into operation on 5th April 1991 They repeal the Factories Ionizing Radiations (Sealed Sources) Regulations, 1972 and the Factories Ionizing Radiations (Unsealed Sources) Regulations, 1972 (reported in Nuclear Law Bulletin Nos 9, 13)

The Regulations were made in implementation of the European Communities Council Directive 80/836 Euratom of 15th July 1980, as amended by Council Directive 84/467 Euratom of 3rd September 1984, laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation (see Nuclear Law Bulletin No 34) They also complement the Nuclear Energy (General Control of Fissile Fuels, Radioactive Substances and Irradiation Apparatus) Order, 1977 with regard to licensing requirements (see Nuclear Law Bulletin No 20)

The Regulations apply to the production, processing, handling, use, transport, storage, etc of natural and artificial radioactive substances and to any other activity which involves a hazard arising from ionizing radiation They provide that all exposures must be kept as low as reasonably achievable (the ALARA principle) The Schedule to the Regulations lays down the dose limits, e g for the year it must not exceed 20 mSv for exposed workers and 1 mSv for any other person

• Republic of Korea

ORGANISATION AND STRUCTURE

Bodies established under the Atomic Energy Act (1989)

The Atomic Energy Act (Law No. 483) is the basic legislation governing nuclear activities in the Republic of Korea The Act, which was promulgated in March 1958 was amended on several occasions, and a series of Decrees have been adopted in implementation of the Act The Act and a number of Decrees were analysed in Nuclear Law Bulletin Nos 6, 7 and 11; since then some responsibilities for nuclear activities have been reorganised and the structural changes are briefly described below Presidential Decree No 10927 of 30th September 1982 (the Enforcement Decree) and the Prime Minister's Ordinance No 275 of 23rd April 1983 provide for implementation of the Act's provisions as amended

Atomic Energy Commission

The Atomic Energy Commission is placed under the Prime Minister's Office and is responsible for the orientation of nuclear activities It is chaired by the Vice Prime Minister, and the Permanent Commissioners are the Minister of Science and Technology, the Minister of Energy and Resources and the President of the Korean Electric Power Corporation The other one to three Commissioners are appointed by the President of the Republic of Korea, on the Chairman's recommendation It should be noted that, until 1986, the Atomic Energy Commission was placed under the Minister of Science and Technology

The Korean Atomic Energy Research Institute

This Institute has been established under the supervision of the Minister of Science and Technology and is responsible for research and experiments in the field of nuclear energy Since 1986, the Institute has been in charge of the management and disposal of radioactive waste, including spent fuel

The Korean Institute for Nuclear Safety

This Institute is also under the supervision of the Minister of Science and Technology Its duties cover safety assessments for licence applications for design, construction and operation of nuclear power reactors, nuclear fuel cycle installations, etc , inspections of those facilities, development of technical safety standards and instructions Until 1989 the Institute came under the Atomic Energy Institute and was known as the Nuclear Safety Centre

• Mexico

RADIATION PROTECTION

Guidelines related to health and safety at work in premises where sources of ionizing radiation are used (1991)

The above Guidelines (Instruction No 12) were published by the Minister for Labour and Social Planning in the Official Gazette (Diario Oficial) of 15th February 1991 and entered into force on 18th February 1991

They apply to all workplaces where sources of ionizing radiation are handled, stored, transported and which are capable of contaminating the working environment. They are intended for the employers in those workplaces and details their duties to protect the radiation workers. They provide in particular that exposure doses must be as low as reasonably achievable, and that preventive measures must be implemented to ensure that no workers receive doses above the permissible limits established by the laws and regulations in force Technical directives are included which concern panels to identify the different areas, according to whether they are controlled or restricted in view of the radiation work performed, record-keeping of occupationally exposed workers, their dosimetric results, etc

The Tables set out the maximum permissible intake limits of radionuclides

• Norway

RADIATION PROTECTION

Guidelines on radon measurements in dwellings (1988)

The State Institute of Radiation Hygiene (SIS) issued Guidelines on radon measurements in dwellings in November 1988, based on results of large-scale surveys in Norway and on conclusions reached by national experts and competent international organisations (WHO, ICRP, UNSCEAR)

The Institute concluded that radon was the main source of collective exposure to radiation in the country and made recommendations on the permissible average yearly radon concentration, in existing and in future dwellings In the first case, if the concentration is higher than 200 Bq/m3, consideration should be given to reducing this level, and if it is higher than 800 Bq/m3 action should definitely be taken, irrespective of cost As regards future dwellings, the Institute recommended that radon concentration should be

as low as reasonably achievable (the ALARA principle of the International Commission on Radiological Protection - ICRP), and that this building standard should be considered for all future houses, with the 200 Bq/m3 yearly limit applied for any remedial action, if the concentration is measured after construction is completed

The Institute also issued similar Guidelines on radon measurements for building grounds on the same date

• Portugal

ORGANISATION AND STRUCTURE

Decree-Law designating the competent authority for physical protection of nuclear material (1990)

Following approval of the Convention on the Physical Protection of Nuclear Material and adoption of Presidential Decree No 14/90 of 15th March 1990 authorising its ratification, Decree-Law No 375/90 of 10th November 1990 (published in the Diario da Republica, I serie, of 27th November 1990) designates, in accordance with the Convention, the Protection and Nuclear Safety Bureau (Gabinete de protecçao e segurança nuclear - GPSN) of the Ministry of the Environment and Natural Resources as the national competent authority in relation to physical protection matters

Accordingly, the import, manufacture, possession, purchase, sale or transfer of nuclear material, as well as its transport whether national or international, when it takes place on the national territory are subject to prior authorisation by the GPSN, without prejudice to the competence assigned to other authorities

ENVIRONMENTAL PROTECTION

Decree on environmental impact assessments (1990)

Decree-Law No 186/90 on environmental protection provides that approval of nuclear installations is subject to a prior assessment of their effect on the environment (see Nuclear Law Bulletin No 46)

Decree No 38/90 of 14th November 1990 (published in the Diario da Republica, I Seria, of 27th November 1990) was made in implementation of the above Decree-Law It specifies that prior to any licence being granted, the licensing authority must be provided with an environmental impact study of the

planned installation The study must include, inter alia, a description of the project, its site, its operational characteristics, physical, geological, hydrological, ecological, demographic data, as well as information the quality of the environment (water, soil, noise level), etc The public is consulted on the environmental impact study and must communicate its views within a given time-limit

• Romania

ORGANISATION AND STRUCTURE

The tasks and operation of the National Commission for the Control of Nuclear Activities (1991)

The National Commission for the Control of Nuclear Activities is the national body in Romania responsible for licensing and control of the uses and development of nuclear energy for peaceful purposes

This central State organisation was set up by **Decree No. 29 of 8th January 1990** The State Committee for Nuclear Energy, which had responsibilities in the field of nuclear energy during the previous regime, was abolished by Decree No 6 of 3rd January 1990

Decree No. 221 of 11th May 1990 establishes the competence of the National Commission for the Control of Nuclear Energy and provides for its operation

As a specialised State organisation, the Commission is responsible for preparing and applying Acts, regulations and other legal texts in its field of competence In the discharge of its duties the Commission collaborates with other national bodies with a particular competence in licensing and control This collaboration - generally with Ministries and other State entities - is provided for by **Act No. 6 of 12th November 1982** on quality assurance of nuclear projects and installations This Act set up a system of licensing and control to ensure the quality of nuclear projects and installations and products and services used to achieve this purpose The responsibilities in this field are assigned to the Ministries of Public Health, Trade and Tourism, and Environmental Protection

The Commission's specific duties are detailed in the above-mentioned Decree No 221/1990 A most important duty is that of ensuring the proper conduct of nuclear activities, including the possession and transport of radioactive materials and radioactive waste management while protecting personnel, the public and its property, and the environment To this effect, the Commission establishes mandatory technical standards and directives

The Commission delivers construction and operating licences in the nuclear field and the required permits to personnel. The conditions for delivering such licences and permits are set out in **Act No. 61 of 30th October 1974** on activities in the nuclear field (this Act was analysed in the study on "Third Party Liability" in the Nuclear Legislation Series, published by OECD/NEA in 1990) In order to carry out the assessments, expert studies, analyses and checks required in the licensing process, the Commission levies taxes which are entered in the budget

The Commission is also empowered to authorise emergency plans in case of a nuclear accident and must supervise their good conduct In accordance with the above-mentioned Act No 6/1982, the Commission controls the implementation of quality assurance programmes for nuclear activities, in addition, it estimates the need for importing equipment or other types of technical assistance

The Commission is responsible for international co-operation in the nuclear field It establishes relations with competent national bodies in other countries and international organisations, and supervises the implementation of the International Conventions on non-proliferation, physical protection, radiation protection, transport of radioactive materials, etc

The National Commission for the Control of Nuclear Energy is an independent body managed by a Steering Committee which decides its program of work Specialists from the different Ministries and institutions, interested in the problems brought up at meetings may be invited to participate in the discussions.

The President of the Commission has Ministerial ranking (Secretary of State) He represents the Commission in national and international relations

• Spain

RADIATION PROTECTION

Royal Decree laying down basic measures for radiation protection of persons undergoing medical examination or treatment (1990)

The purpose of Royal Decree No 1132 of 14th September 1990 is to incorporate into Spanish regulations Directive 84/466 Euratom which lays down basic measures for the radiation protection of persons undergoing medical examination or treatment (see Nuclear Law Bulletin No 34)

The main principle is that any exposure to radiation for medical purposes must be kept as low as reasonably achievable (the ALARA principle) Furthermore, any such exposure must be medically justified and be conducted under the responsibility of a medical or dental practitioner who has been

adequately trained in the radiation protection field Also, all radiotherapy, radiodiagnostic and nuclear medicine facilities must be recorded in the national inventory by the Health Ministry to avoid unnecessary proliferation of such equipment, in accordance with the provisions of the above Directive

• Switzerland

REGIME OF NUCLEAR INSTALLATIONS

Extension of 1978 Federal Order concerning the Atomic Energy Act (1990)

Federal Order RS 732 01, adopted by the Federal Assembly (Parliament) on 6th October 1978, supplements the Federal Act of 23rd December 1959 on Atomic Energy and has amended the licensing procedure for nuclear installations (see Nuclear Law Bulletin No 29)

This Order provides a transitional solution as its validity is of limited duration, since its Section 13(3) stipulates that· "This Order shall remain valid until the entry into force of a new Atomic Energy Act, but no later than 31st December 1983" Therefore, it is up to Parliament to extend the Federal Order for a given period before it expires Accordingly, the Order was extended for the first time in 1983 until 1990 (see Nuclear Law Bulletin No 31), and the second time in 1990 until the year 2000

It is expected that the Government will put a Nuclear Energy Bill before Parliament in 1994

THIRD PARTY LIABILITY

Ordinance raising the nuclear operators' third party liability insurance cover (1990)

The Federal Act of 18th March 1983 on Nuclear Third Party Liability (RS 732 44) provides that when the insurance market offers higher cover at acceptable conditions, the Federal Council must raise the minimum insurance amounts (the text of the Act is reproduced in the Supplement to Nuclear Law Bulletin No 32)

In view of the fact that the insurance market can now provide higher cover at conditions acceptable to operators, the Federal Council adopted an Ordinance to this effect By this Ordinance of 24th October 1990, the minimum mandatory insurance cover for each nuclear installation has been raised from 400 to 500 million Swiss francs, and the cover for interest and costs of procedures from 40 to 50 million francs

Consequently, the coefficient of the premium the Confederation levies from operators for federal insurance, which is calculated as a percentage of the premiums paid to private insurers has been reduced from 200 to 160 per cent for nuclear power plants

• Tunisia

ORGANISATION AND STRUCTURE

Decree setting up a National Atomic Energy Commission (1990)

Decree No 90-1399 of 3rd September 1990 setting up a National Atomic Energy Commission was published in the Official Gazette of the Tunisian Republic No 58 of 14th September 1990

The Commission's tasks include, inter alia, participating in the elaboration of the national policy for the development of nuclear energy for peaceful purposes, promoting, co-ordinating and supervising nuclear activities, advising the Government on international agreements prior to their signature, ratification or accession by Tunisia and following their implementation at national level, promoting international relations in the nuclear field, etc

The Commission includes representatives of the Government Ministries, the national electricity and gas board, the national scientific research and radiation protection centres and two scientific specialists, competent in the nuclear field The representative of the Prime Minister is the President of the Commission

• United States

REGIME OF NUCLEAR INSTALLATIONS

Licensing of nuclear enrichment facilities (1990)

Congress, on 15th November 1990, passed the an Act to encourage power production using solar, wind, waste, and geothermal technologies In addition, the Act amends the Atomic Energy Act of 1954 in relation to the licensing of private uranium enrichment facilities

Under the pre-existing law, such facilities were licensed through the same process as nuclear power reactors The Nuclear Regulatory Commission (NRC) suggested that this treatment was inappropriate, since there are a totally different set of circumstances involved at these plants The Subcommittee on Energy and Environment conducted a hearing on uranium enrichment licensing on 6th March 1990, in response to the Senate passing a uranium licensing amendment in November 1989 That proposed amendment would have required a private uranium enrichment facility to be licensed under the process applied to nuclear materials licensees, such as facilities that convert uranium into uranium hexafluoride The Act passed by Congress in November 1990 is a compromise between that Senate proposal and the more rigorous requirements of the pre-existing law It requires that

- a full adjudicatory public hearing be held prior to the issue of a combined construction/operation licence,
- an environmental impact statement be prepared before completion of the hearing;
- the Commission inspect the facility to ensure that it has been constructed in accordance with the licence, before operation begins,
- the licensee maintain liability insurance of an amount the Commission considers sufficient to cover all liability claims related to the operation of the enrichment facility,
- the licensee guarantee that funds are available for decommissioning and decontamination of the facility, by means which may include pre-payment, surety or performance bond, or a fund into which payments are made at least annually

The Act also prohibits the Federal Government from providing any insurance subsidy to a private enrichment facility through the Price-Anderson Act (Under the pre-existing law, the NRC had a discretion to provide such a subsidy, but was not required to do so) At present, all enrichment facilities in the United States are operated by the Federal Government, and the Interior Committee of Congress considered that if private entrepreneurs wished to enter the field, those entrepreneurs, not federal taxpayers, should bear the financial liability for their actions In addition, it was thought that the increased financial accountability created by private insurance would be an economic incentive for the safe operation of the facilities

REGIME OF RADIOACTIVE MATERIALS

Custody and long-term care of uranium and thorium mill tailings disposal sites (1990)

On 30th October 1990, the Nuclear Regulatory Commission (NRC) published in the Federal Register (55 FR 45591) amendments to its regulations in 10 CFR Part 40 providing licences that will permit NRC to license the custody and long-term care of reclaimed or closed uranium or thorium mill tailings sites,

after remedial action or closure under the 1978 Uranium Mill Tailings Radiation Control Act has been completed (see Nuclear Law Bulletin No 23) The intended effect of this action is to provide a surveillance procedure to ensure continued protection of public health and safety and the environment This action was necessary to meet the requirements of Titles I and II of the Uranium Mill Tailings Radiation Control Act

Licensing and radiation safety requirements for use of large irradiators (1990)

On 4th December 1990, the NRC published in the Federal Register (55 FR 50008), a notice of proposed rulemaking that would add a new Part 36 to Title 10, Code of Federal Regulations to specify radiation safety requirements and licensing requirements for the use of licensed radioactive materials in large irradiators The safety requirements would apply to large panoramic irradiators (in air in a room) and certain large underwater irradiators, in which the source always remains shielded under water and the product is irradiated underwater On the other hand, the rule would not cover, inter alia, instrument calibrators, medical uses of sealed sources (such as teletherapy), or nondestructive testing (such as industrial radiography)

Material control and accounting for certain enrichment facilities (1990)

On 17th December 1990, the NRC published in the Federal Register (55 FR 61726) a notice of proposed rulemaking that would provide new performance-based material control and accounting requirements applicable to uranium enrichment facility licensees who produce significant quantities of special nuclear material (SNM) of low strategic significance The proposed requirements are similar to existing requirements which apply to licensees authorised to possess and use more than one effective kilogram of SNM of low strategic significance. The proposed rule would impose additional requirements to ensure that enrichment facilities would produce only enriched uranium of low strategic significance as authorised

TRANSPORT OF RADIOACTIVE MATERIALS

Hazardous Materials Transportation Uniform Safety Act of 1990

On 16th November 1990, the President signed into law the Hazardous Materials Transportation Uniform Safety Act of 1990 (P L 101-615) It significantly revised many Sections of the Hazardous Materials Transportation Act (the HMTA) and added several new Sections to the HMTA For purposes of harmonization, the Uniform Safety Act also amended the Motor Carrier Act of 1980, the Motor Carrier Safety Act of 1984, the Federal Railroad Safety Act of 1970, and the Occupational Safety and Health Act of 1970 Many of the provisions in the Uniform Safety Act have an impact on transportation of radioactive material

The following are examples of the amendments Section 116 of the HMTA, as amended, "Transportation of Certain Highly Radioactive Materials", directs the Secretary of Transportation to "undertake a study comparing the safety of using trains operated exclusively for transporting high-level radioactive waste and spent nuclear fuel with the safety of using other methods of rail transportation for such purposes" The Secretary is directed to consult with the NRC, the Department of Energy (DOE), and others in the performance of this study, and to report the results of the study to Congress not later than 16th November 1991 Taking into consideration the findings of the study, the Secretary is required to amend existing regulations as he deems appropriate to provide for the safe transportation of high-level radioactive waste and spent nuclear fuel by various methods of rail transportation

Section 116(d) of the HMTA, as amended, "Inspections of Vehicles Transporting Highway Route Controlled Quantity Radioactive Materials", requires the Secretary to issue regulations (not later than 16th November 1991) requiring that "before each use of a motor vehicle to transport in commerce any highway route controlled quantity radioactive material" the vehicle must be "inspected and certified to be in compliance with this title [49 U S C] and applicable Federal motor carrier safety laws and regulations"

Section 117A of the HMTA, as amended, "Public Sector Training and Planning", requires the Secretary to make planning grants "to States (A) for developing, improving, and implementing emergency plans under the Emergency Planning and Community Right-To-Know Act of 1986, including determination of flow patterns of hazardous materials within a State and between a State and another State, and (B) for determining the need for regional hazardous materials emergency response teams"

The Secretary of Transportation is directed by the HMTA, as amended by the Uniform Safety Act, to undertake numerous studies, rulemakings, and other activities with respect to various areas of hazardous materials transportation

Section 16, "Inspectors", of the Uniform Safety Act requires the Secretary in fiscal year 1991 to "employ and maintain thereafter an additional thirty hazardous materials safety inspectors above the number of safety inspectors authorised for fiscal year 1990" and to "take such action as may be necessary to assure that the activities of ten such additional inspectors focus on promoting safety in the transportation of radioactive materials"

THIRD PARTY LIABILITY

Radiation Exposure Compensation Act 1990

In October 1990, the Radiation Exposure Compensation Act 1990 was passed, to provide for payment of compensation to individuals who contracted certain diseases because of exposure to radiation resulting from the United States nuclear weapons testing programme It follows examination by Subcommittees of Congress of allegations that during the atmospheric testing of nuclear weapons between 1945 and 1963, the United States Government negligently

failed to warn individuals downwind from the test site of the dangers of exposure to radiation resulting from the tests. It was also claimed that the Government wilfully allowed uranium miners to be exposed to dangerous levels of radiation.

Both uranium miners and fallout victims had sued the United States Government in the courts, which had found that the Government was negligent The claims failed, however, because of an exception in the Federal Tort Claims Act relating to the performance by a Government agency or employee of "a discretionary function or duty" (See Nuclear Law Bulletin No 43, Case Law) On the other hand, contractors who participated in the testing programme had no such immunity and the Government in the original contracts had promised to indemnify them in the case of litigation. A large number of cases (for a total of over $4.9 billion) were brought against contractors, but were stopped by a federal law ("the Warner Amendment") in 1985

The new Act includes a finding by Congress that the testing programme damaged the health of individuals and that the United States should assume responsibility for that harm, as well as an apology to the individuals affected It states that the purpose of the Act is to provide partial restitution to those individuals.

The Act establishes a $100 million trust fund from which payments are to be made as follows

(1) $50,000 to an individual who was in a designated affected area for a year between 1951 and 1958, or for the month of July 1962 and contracted one of 13 specified cancers, and

(2) $100,000 to an employee of a uranium mine in a designated State between 1947 and 1971 who was exposed to a designated amount of radiation and developed lung cancer or another respiratory disease associated with radiation

Only these facts need to be demonstrated to the Department of Justice The claimant does not need to prove that the disease was caused by exposure to radiation

Acceptance of a payment would be in full satisfaction of all claims against the United States or a contractor

All claims under the Act must be made within six years

• Uruguay

REGIME OF RADIOACTIVE MATERIALS

Order on basic licensing requirements and procedures (1990)

Order No 10/90 was approved by the National Nuclear Technology Directorate (Dirección nacional de tecnologia nuclear - DINATEN), on 12th November 1990, in accordance with the power granted to DINATEN by Decrees No 519/984 of 21st November 1984 and No 47/989 of 8th February 1989 (see Nuclear Law Bulletin Nos 37 and 43)

The Order requires specific licences to be issued for different uses of ionizing radiation and radioactive substances - such as medical and industrial uses - as well as for associated activities - such as import, export, and sale of radioactive substances or of equipment which generates ionizing radiation or incorporates radioactive substances, as well as maintenance of such equipment

Chapter I sets out in general terms the basic conditions for licensing It provides for two broad categories of licences - one for individuals and the other for institutions using ionizing radiation or radioactive substances or undertaking other related activities It also establishes the basic administrative procedures for granting of licences

Chapter II then sets out detailed conditions for obtaining individual licences Chapter III does the same in relation to licensing of institutions, in particular, by requiring that the applicant meet the requirements of the Radiological Protection Basic Law and any other rules established by DINATEN by virtue of the Decrees already mentioned

INTERNATIONAL REGULATORY ACTIVITIES

• OECD Nuclear Energy Agency

RECOMMENDATION FOLLOWING A COLLECTIVE EXPERT OPINION ON THE LONG-TERM SAFETY OF RADIOACTIVE WASTE DISPOSAL (1990)

At its session of 3rd October 1990, the OECD Steering Committee for Nuclear Energy considered a report containing a Collective Opinion of the NEA Radioactive Waste Management Committee and the IAEA International Radioactive Waste Management Committee on evaluating the long-term safety of radioactive waste disposal

The first Collective Opinion of the NEA Radioactive Waste Management Committee presenting a technical appraisal of the current situation in the field of radioactive waste management was published by the NEA in 1985 The Steering Committee had recommended at the time that national authorities take fully into account the conclusions of the Collective Opinion in the continuing development of the national nuclear energy policies (see Nuclear Law Bulletin No 35)

The NEA Radioactive Waste Management Committee considered it timely to prepare a new Collective Opinion on the assessment of the long-term safety of radioactive waste repositories, addressed to a wide audience A Symposium, organised jointly with the Commission of the European Communities and the IAEA, on the safety assessment of such repositories provided the basis for a detailed review of the status of knowledge in this field

This new Collective Opinion deals with the methodology and means for assessing the safety of radioactive waste disposal paractices and concepts Extracts from the executive summary of this Opinion are reproduced below

"The long-term safety of any hazardous waste disposal system must be convincingly shown prior to its implementation For radioactive wastes, safety assessments over timescales far beyond the normal horizon of social and technical planning have already been conducted in many countries These assessments provide the principal means to investigate, quantify, and explain the long-term safety of each selected disposal concept and site for the

appropriate authorities and the public Such assessments are based on four main elements, definition of the disposal system and its environment, identification of possible processes and events that may affect the integrity of the disposal system, quantification of the radiological impact by predictive modelling, and description of associated uncertainties "

In conclusion, the NEA and IAEA Committees

"- Recognise that a correct and sufficient understanding of proposed disposal systems is a basic prerequisite for conducting meaningful safety assessments,

- Note that the collection and evaluation of data from proposed disposal sites are the major tasks on which further progress is needed,

- Acknowledge that significant progress in the ability to conduct safety assessment has been made,

- Acknowledge that quantitative safety assessments will always be complemented by qualitative evidence, and

- Note that safety assessment methods can and will be further developed as a result of ongoing work "

Keeping these considerations in mind, both Committees confirmed that safety assessment methods are available today to evaluate adequately the potential long-term radiological impacts of a carefully designed radioactive waste disposal system on humans and the environment They also consider that appropriate use of such methods, coupled with sufficient information from proposed disposal sites, can provide the technical basis to decide whether specific disposal systems would offer to society a satisfactory level of safety for both current and future generations

This Collective Opinion was endorsed by the CEC Experts for the Community Plan of Action in the Field of Radioactive Waste Management

The Steering Committee noted and supported this Collective Opinion, considering that it offered an authoritative international view on the present capacity to perform long-term safety assessments of waste repositories It recommended publication of the Opinion and urged NEA Member countries to give it a wide distribution to decision-makers and opinion-formers

The Collective Opinion, entitled "Disposal of Radioactive Waste Can Long-Term Safety be Evaluated?" was published by NEA/OECD early in 1991

• European Communities

COUNCIL DIRECTIVE ON THE PROTECTION OF OUTSIDE WORKERS EXPOSED TO RADIATION (1990)

On 4th December 1990, the Council of the European Communities adopted Directive 90/641/Euratom on the operational protection of outside workers exposed to the risk of ionizing radiation during their activities in controlled areas The Directive was published in the Official Journal of the European Communities No L 349 of 13th December 1990 It supplements Directive 80/836/Euratom laying down basic standards for the health protection of workers and the general public against the dangers arising from ionizing radiations (see Nuclear Law Bulletin Nos 26 and 34)

This Directive makes provision for a radiological monitoring system for outside workers which ensures that their employers (outside undertakings) and the operators of installations where they work meet their obligations with respect to radiological protection The system applies solely to the most exposed workers, namely, Category A workers, within the meaning of Article 23 of Directive 80/836/Euratom, who engage in activities in controlled areas

Member States are required to implement the Directive before 31st December 1993

COMMISSION RECOMMENDATION ON THE APPLICATION OF ARTICLE 37 OF THE EURATOM TREATY (1990)

On 7th December 1990, the Commission of the European Communities adopted a Recommendation concerning the application of Article 37 of the Euratom Treaty which specifies that "each Member State is to provide the Commission with such general data relating to any plan for the disposal of radioactive waste in whatever form as would make it possible to determine whether the implementation of such plan is liable to result in the radioactive contamination of the water, soil or airspace of another Member State" This Recommendation replaces a Recommendation of 3rd February 1982 It lays down the obligations of Member States in the light of the ruling of the European Communities' Court of Justice of 22nd September 1988 which specifies that "the Commission of the European Communities must be provided with general data relating to any plan for the disposal of radioactive waste before such disposal is authorised by the competent authorities of the Member State concerned" The Court added that" it must be acknowledged that where a Member State makes the disposal of radioactive waste subject to authorisation, the Commission's opinion must, in order to be rendered fully effective, be brought to the notice of that State before the issue of any such authorisation" (see Nuclear Law Bulletin No 42 under "Case Law" for a commentary on this matter)

The Recommendation defines what is meant by "the disposal of radioactive waste" and lists the categories of activities covered by the procedure laid

down in Article 37 It also requests the Member State concerned to inform the Commission of any actions it envisages in response to the Commission's recommendations and to communicate to it for information any authorisation for radioactive waste disposal The Annexes to the Recommendation specify the particulars to be included in the general data communicated to the Commission by the Member States

The Recommendation was published in the Official Journal of the European Communities No L 6 of 9th January 1991

• World Health Organization

RESOLUTION ON THE INTERNATIONAL PROGRAMME TO MITIGATE THE HEALTH EFFECTS OF THE CHERNOBYL ACCIDENT (1991)

At its session of 22nd January 1991, the Executive Board of the World Health Organisation (WHO) adopted a Resolution on the international programme to mitigate the health effects of the Chernobyl accident. On 30th April 1990, WHO and the USSR concluded a Memorandum of Understanding on the establishment of this programme, to be based at an international centre in Obninsk, USSR (see Nuclear Law Bulletin No 46)

The Executive Board examined a report by the Director-General of WHO concerning the programme objectives and content, its organisational arrangements and its implementation The programme is envisaged as a long-term collaborative effort of the USSR and other interested Member States, organised under the sponsorship of WHO, with the participation of other relevant international organisations The programme has two general goals the mitigation of the health consequences of the accident and also, research on the health effects of exposure to radiation and the development of guidelines for dealing with radiation emergencies in the future

The Resolution, in particular, endorses in principle the further development of the programme as described in the report, urges Member States to participate actively in its development and requests the Director-General to continue to closely collaborate on this question with the International Atomic Energy Agency (IAEA) and other competent international organisations

• ICRP

RECOMMENDATIONS ON RADIOLOGICAL PROTECTION (1990)

At its meeting in November 1990, the International Commission on Radiological Protection (ICRP) updated its recommendations issued as Publication No 26 in 1977 The ICRP's recommendations are taken into account by competent international organisations publishing standards in the radiation protection field (see Nuclear Law Bulletin Nos. 28, 30 and 32 under NEA and IAEA) as well as in the preparation of national regulations in this field

Since 1977, the ICRP has issued statements clarifying and extending those recommendations, but in view of recent developments, in particular concerning the levels of risk associated with exposure to ionizing radiation, the Commission considered that new recommendations were required New data and new interpretation of earlier information indicated with reasonable certainty that such risks were about three times higher than they were estimated to be a decade ago

This increase called for some quantitative changes in the Commission's recommendations One such change is a reduction of the dose limit for occupational exposure, the previous limit of 50 millisievert (mSv), ie 5 rem, per year has been reduced to 20 mSv per year averaged over five years The dose should not exceed 50 mSv in any single year The limit for exposure of the public is 1 mSv, ie. 100 millirem, per year

The Commission has maintained and strengthened its system of radiation protection, namely that practices causing exposures should be justified, protection arrangements should be optimized and the individual exposures should be restricted by dose limits or source- related constraints The recommendations emphasize the importance of the optimization of radiation protection arrangements, that is that all reasonable steps be taken to restrict the radiation exposures caused by human activities

The new recommendations stress the difference between the practices causing exposure where radiation protection arrangements are planned to keep exposures under control and the situations where accidents or existing exposures require decisions on remedial actions Although the same general principles of protection apply in the two types of situation, the relevent specific dose limits and constraints can be different

It is recalled that the ICRP is a non-governmental organisation composed of independent experts and was established in 1928

SECURITY COUNCIL RESOLUTION 687 CONCERNING A FORMAL CEASE-FIRE IN IRAQ (1991)

On 3rd April 1991, the Security Council of the United Nations adopted Resolution No 687 setting the conditions for a formal cease-fire ending the conflict resulting from Iraq's invasion of Kuwait on 2nd August 1990 The resolution includes compulsory measures under Chapter VII of the UN Charter A number of its provisions relate to Iraq's nuclear capacity, and reflect the fear that it may use that capacity to develop nuclear weapons In addition, the International Atomic Energy Agency (IAEA) is entrusted with a number of important tasks unprecedented in the history of that organisation

The preamble to the resolution records the concern of the Council at reports "that Iraq has attempted to acquire materials for a nuclear-weapons programme contrary to its obligations under the Treaty on the Non-Proliferation of Nuclear Weapons of 1st July 1968" (NPT), and recalls "the objective of the establishment of a nuclear-weapons-free zone in the region of the Middle East"

The resolution invites Iraq to reaffirm unconditionally its obligations under the NPT (paragraph 11)

Paragraph 12 of the resolution sets out the decision of the Security Council to the effect that Iraq shall

- unconditionally agree not to acquire or develop nuclear weapons, material that could be used in nuclear weapons, or any related subsystems or components or any research, development, support or manufacturing facilities,

- submit to the IAEA within fifteen days a declaration of the locations, amounts and types of all such items,

- place all of its nuclear-weapons-usable materials under the exclusive control of the IAEA, for custody and removal, with the assistance of a Special Commission (set up by the United Nations),

- accept urgent on-site inspection and the destruction, removal or rendering harmless, as appropriate, of all such items,

- accept the plan provided for in paragraph 13 for future ongoing monitoring and verification of its compliance with these undertakings

Paragraph 13 requests the Director-General of the IAEA, through the Secretary-General, with the assistance and co-operation of the Special Commission

- to carry out immediate on-site inspection of Iraq's nuclear capabilities based on Iraq's declarations and the designation of any additional locations by the Special Commission,

- to develop a plan for submission to the Security Council within 45 days calling for the destruction, removal, or rendering harmless as appropriate of all items listed in paragraph 12,

- to carry out the plan within 45 days following approval by the Security Council;

- to develop a plan, taking into account Iraq's rights and obligations under the NPT, for the future ongoing monitoring and verification of Iraq's compliance with paragraph 12, including an inventory of all nuclear material in Iraq subject to the Agency's verification and inspections of the IAEA to confirm that the Agency's safeguards cover all relevant nuclear activities in Iraq, to be submitted to the Security Council for approval within 120 days of the passage of the resolution.

In paragraph 24, the Security Council decides that all States are to continue to prevent the sale or supply, or the promotion or facilitation of such sale or supply, to Iraq by their nationals, from their territories or using their flag vessels or aircraft, of arms and materiel and other items including

- all items specified in paragraph 12,

- technology under licensing or other transfer arrangements used in the production, utilisation or stockpiling of such items,

- personnel or materials for training or technical support services relating to the design, development, manufacture, use, maintenance or support of such items

This obligation is to be observed notwithstanding the existence of any contracts, agreements, licences or other arrangements, and the Secretary-General is requested to draw up guidelines to facilitate its implementation within sixty days (paragraph 23)

AGREEMENTS

BILATERAL AGREEMENTS

• *Argentina - Brazil*

DECLARATION ON JOINT NUCLEAR POLICY (1990)

The Presidents of Argentina and Brazil issued this Declaration on their Joint Nuclear Policy on 28th November 1990 at Foz do Iguaçu, Brazil. It was made in furtherance of the commitments undertaken by both countries in prior declarations in that respect (see Nuclear Law Bulletin Nos 37 and 42).

The Declaration sets out their agreement on the establishment of a joint system of accounting and control for the nuclear activities in both countries This includes, inter alia, the exchange of descriptive lists of their nuclear facilities and declarations of initial inventories of nuclear materials, and reciprocal inspections of their records. The purpose is to harmonize both accounting and control systems and to merge them into the joint system for submission to the International Atomic Energy Agency (IAEA) in accordance with the separately concluded safeguards agreements in force The Declaration also provides that both countries will start negotiations with the IAEA to conclude a joint safeguards agreement with the Agency whose basis would be the joint system of accounting and control Following conclusion of that safeguards agreement, both countries undertook to take the necessary measures to bring into force in their respective countries, the Treaty on the Prohibition of Nuclear Weapons in Latin America - the Tlatelolco Treaty (see Nuclear Law Bulletin No 29)

• *Austria - Czechoslovakia*

AGREEMENT IN THE FIELD OF NUCLEAR SAFETY AND RADIATION PROTECTION (1990)

Austria and Czechoslovakia concluded the above Agreement on questions of common interest in the field of nuclear safety and radiation protection on

25th October 1989 It entered into force on 13th July 1990 and was registered under No 431/1990 in the Collection of Laws of the Czech and Slovak Republic

The Agreement concerns, in particular, the exchange of information in the event of a nuclear accident, on radiation monitoring results in the respective national territories, on the nuclear programmes and experience and on nuclear legislation

It covers nuclear reactors, fuel cycle and radioactive waste treatment facilities, transport and storage of nuclear fuel and radioactive waste, manufacture, use, storage, disposal and transport of radioisotopes

The 1982 Agreement between both countries on questions of common interest in relation to nuclear installations, reported in Nuclear Law Bulletin No 36, was repealed

• Czechoslovakia - Germany

AGREEMENT ON SCIENTIFIC AND TECHNICAL CO-OPERATION (1990)

On 2nd November 1990, the Governments of Germany and the Czech and Slovak Republic concluded an Agreement on scientific and technical co-operation The Agreement, published in Bundesgesetzblatt 1990 II p 1691, entered into force on the date of its signature It provides a general framework for co-operation in all fields of science and technology, including the nuclear field Both Parties will exchange information in the selected fields, organise conferences, exchange personnel, use scientific facilities jointly and co-operate in joint projects A mixed Commission on scientific and technical co-operation was established to implement the Agreement

• Czechoslovakia - Hungary

AGREEMENT ON EXCHANGE OF INFORMATION ON NUCLEAR SAFETY AND RADIATION PROTECTION (1990)

On 20th September 1990, the Czech and Slovak Republic and Hungary concluded the above Agreement on the basis of the IAEA so-called Notification and Assistance Conventions but has a broader scope regarding the type of information to be exchanged In particular, apart from notification being given of any event causing or likely to cause a transboundary radioactive

release with a radiological safety significance for the other State, information will be exchanged on a variety of questions These include provision of information on planned nuclear facilities and results of environmental monitoring

The Agreement covers nuclear reactors, fuel cycle facilities, radioactive waste management and treatment facilities, transport and storage of radioactive waste, manufacture, storage, disposal and transport of radioisotopes

• France-Switzerland

AGREEMENT ON CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY (1988)

This Agreement between France and Switzerland was signed in Paris on 5th December 1988 and entered into force on 1st December 1990. The Agreement, and letters exchanged by both Parties on 30th November 1989, were published by Decree No 91-54 of 11th January 1991 in the Official Gazette of the French Republic of 17th January 1991 A previous Agreement of 14th May 1970 between both countries was terminated with the entry into force of the new Agreement.

The purpose of this Agreement, in the framework of both countries' respective programmes, is to develop their co-operation in the field of the peaceful uses of nuclear energy Co-operation may be extended to the entire area of nuclear power production, including fuel cycle operations, radioisotope production, scientific and technical research, and nuclear safety The above-mentioned letters specify that both Parties agree to contribute to enhancing the safety of nuclear installations and preventing harmful effects to the environment, in particular, by exchanging information on the following questions.

- reactor safety design and reactor safety;
- technical rules and criteria in the field of reactor safety,
- safety of other installations in the fuel cycle and especially those for the treatment and storage of radioactive waste,
- radiation protection,
- accident scenario studies

Finally, the Agreement specifies that all materials held or transferred are subject to IAEA Safeguards, that the prior consent of the other Contracting Party is required for any transfers to a third country, and that adequate physical protection measures must be applied to nuclear materials and equipment covered by the Agreement, on the basis of IAEA document INFCIRC/225 Rev 1

AGREEMENT ON RETURN OF PLUTONIUM (1988)

This Agreement was concluded by an exchange of letters between both countries on 5th December 1988 and entered into force on the same date It was published by Decree No 91-190 of 19th February 1991 in the French Official Gazette of 23rd February 1991

The Agreement settles the conditions for the return to Switzerland of plutonium from the spent fuel reprocessed in France and subject to the 1988 Agreement for co-operation reported above

• France-USSR

AGREEMENT ON CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY (1990)

France and the USSR signed an Agreement for wide-ranging co-operation in the nuclear field on 5th October 1990. The Agreement covers improvement of nuclear safety, public information, fundamental research (high energy physics, controlled fusion, superconductivity, lasers); the back-end of the fuel cycle, in particular, radioactive waste management and storage and reactor dismantling The Agreement also concerns training and future reactor types

• Germany-Hungary

AGREEMENT ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT AND EXCHANGE OF INFORMATION ON NUCLEAR INSTALLATIONS (1990)

On 26th September 1990, Germany and Hungary concluded the above Agreement, based on the IAEA Convention of 1986 on Early Notification of a Nuclear Accident

Under the Agreement, the Parties must notify each other forthwith of any nuclear accident which has occurred in a nuclear reactor, fuel cycle or radioactive waste management facility, during transport and storage of nuclear fuels or radioactive wastes or during manufacture, use, storage, disposal or transport of radioisotopes In addition, the Parties must inform each other of any unusual radioactivity increase Information will be exchanged regularly on developments in the peaceful uses of nuclear energy, nuclear safety regulations, radiation protection and also on experience in the establishment and operation of nuclear installations

• Germany-Sweden

AGREEMENT ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT (1990)

On 25th September 1990, Germany and Sweden concluded an Agreement on early notification of a nuclear accident and on exchange of information and experience in the field of nuclear safety and radiation protection The Agreement, published in Bundesgesetzblatt 1991 II p 421, entered into force on 5th December 1990

The Agreement aims at implementing the 1986 IAEA Convention on Early Notification It also provides for a more comprehensive exchange of information on the development of the peaceful uses of nuclear energy between both Parties, also covering legislation in the nuclear field

• Japan-Mexico

AGREEMENT ON CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR SCIENCE AND TECHNOLOGY (1990)

The above Agreement was concluded between the National Institute of Nuclear Research of Mexico (ININ) and the Japan Atomic Energy Research Institute (JAERI) ON 10th August 1990 It entered into force on the date of its signature for an initial period of five years

The Agreement defines the general conditions of co-operation in the fields of actinide chemistry, radioisotope technology, research reactor design and engineering, radiation technology for environmental protection and dosimetry Both Parties will co-operate through exchanges of information on the above subjects, exchanges of experts and joint utilisation of laboratories and facilities

• Sweden- European Communities

CO-OPERATION AGREEMENT ON RESEARCH AND TRAINING IN THE FIELD OF RADIATION PROTECTION (1990)

The above Agreement was concluded between the European Atomic Energy Community (EURATOM) and Sweden on 3rd August 1990 (published in OJEC No L 228

of 22nd August 1990) It associates Sweden with the Community research and training programme in the field of radiation protection

The two-year programme deals with human exposure to radiation, the consequences of radiation exposure to man. their assessment, prevention and treatment, as well as risks and management of such exposure

• Switzerland- European Communities

RESEARCH AND DEVELOPMENT CO-OPERATION AGREEMENT IN THE FIELD OF RADIOACTIVE WASTE MANAGEMENT (1990)

On 17th October 1990, the European Atomic Energy Community (EURATOM) and the Swiss National Co-operative for the Storage of Radioactive Waste (NAGRA) signed a research and development co-operation Agreement on radioactive waste management The Agreement, which entered into force on the date of its signature, will remain in effect for five years

The programme of co-operation includes waste characterisation and monitoring and waste disposal in geological formations (investigation and modelling of such formations, engineered barriers, repository design, risk assessment, etc). The programme will be carried out through exchange of information on these topics; exchange of samples, materials, instruments and components for testing; organisation of meetings to discuss specified topics, exchange of personnel, and co-ordination of research and development activities Each Party will bear its own costs in implementing the programme

EURATOM and NAGRA had concluded a technical co-operation Agreement in 1984 on determination of the characteristics of radioactive waste and final storage in crystalline formations (see Nuclear Law Bulletin No 34)

MULTILATERAL AGREEMENTS

JOINT DECLARATION ON CO-OPERATION IN THE PEACEFUL USE OF NUCLEAR ENERGY (1991)

On 25th March 1991, the Governments of Belgium, France, Germany and the United Kingdom signed a Joint Declaration aiming at a closer co-operation in the field of the peaceful uses of nuclear energy. As Member States of the European Community and in view of the contribution made by their respective nuclear programmes towards meeting electricity needs, these countries consider they have a common responsibility in achieving a consensus on European energy policy and on the role to be given to nuclear energy in this context

The Signatories expressed their appreciation of the work on nuclear safety carried out by the OECD Nuclear Energy Agency (NEA), the International Atomic Energy Agency (IAEA) and the European Community and stated that they would support all international efforts to improve nuclear safety technology by continuing to co-operate within these bodies The Declaration focuses on seeking a high level of nuclear safety, harmonizing safety standards and intensifying information exchange on nuclear power plant operation It encourages other European countries to participate and recommends adoption of a common strategy to help Central and Eastern European countries reach a safety level in their nuclear power plants comparable to that in plants in the Community countries

The Declaration is reproduced in the "Texts" Chapter in this issue of the Bulletin

PROTOCOL FOR THE PROTECTION OF THE SOUTH-EAST PACIFIC AGAINST RADIOACTIVE POLLUTION (1989)

The above Protocol was adopted on 21st September 1989 under the aegis of the Permanent Commission for the South Pacific whose members are Chile, Colombia, Ecuador, Panama and Peru It entered into force on 22nd August 1990

Under the Protocol, the Parties agree to prohibit all dumping and burial of radioactive waste in the sea and on or under the sea-bed within the area to which the Protocol applies This prohibition covers dumping and burial of radioactive waste or substances in line with the recommendations of the International Atomic Energy Agency

The text of the Protocol is reproduced in the "Texts" Chapter of this issue of the Bulletin

CONVENTION FOR THE PROTECTION OF NATURAL RESOURCES AND THE ENVIRONMENT OF THE SOUTH PACIFIC REGION (1990)

The above Convention, together with its two Protocols dealing respectively with co-operation in combating pollution emergencies in the South Pacific region and with prevention of pollution of the South Pacific region by dumping, were adopted successively on 24th and 25th November 1986 The Convention and Protocols entered into force on 22nd August 1990 and were published by Decree No 91-28 of 4th January 1991 in the Official Gazette of the French Republic of 11th January 1991.

The Convention specifies that its Parties must take all appropriate measures to prevent, reduce and combat pollution in the area within its scope It is forbidden to dump radioactive waste or other radioactive materials in that area or to store them. Disposal of such waste or materials into the sub-seabed is also forbidden Where there is doubt as to the non-radioactive nature of the materials to be dumped, the Parties are invited to take into account the general principles and recommendations issued by the International Atomic Energy Agency

AGREEMENT ON INTERNATIONAL SCIENTIFIC CO-OPERATION ON REACTOR SAFETY (1990)

An Agreement on international scientific co-operation for investigating neutron physics and thermohydraulic problems of reactor safety (AER) was concluded on 30th November 1990 by research institutes in Bulgaria, Czechoslovakia, Hungary, Poland and the USSR Research institutes in Finland subsequently joined the Agreement

The AER sets up a Scientific Council made up of one representative of each Contracting Party to the Agreement, which is responsible, inter alia, for deciding the programme of work on the basis of proposals by the Parties and for approving any co-operation agreements with national or international organisations

The aim of the AER is to develop and refine high precision methods for reactor calculations and reliable methods and codes for reactor design and operation as well as for experimental data evaluation The Appendix to the Agreement describes the technical programme planned and specifies that work will focus in particular on the VVER type-reactor (USSR)

CONVENTIONS ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT AND ASSISTANCE IN CASE OF A NUCLEAR ACCIDENT OR RADIOLOGICAL EMERGENCY

Both the above Conventions were opened for signature on 26th September 1986 and entered into force thirty days after consent to be bound had been expressed by three States Accordingly, the Convention on Early Notification became effective on 27th October 1986 and the Convention on

Assistance on 26th February 1987, in accordance with their Articles 12 3 and 14 3 respectively. For States having expressed such consent after those dates, they entered into force thirty days following such expression, in accordance with their Articles 12 4 and 14 4 respectively (The text of both Conventions is reproduced in the Supplement to Nuclear Law Bulletin No 38)

The following tables give the status of signatures and ratifications of both Conventions as at 15th January 1991.

CONVENTION ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT

Status of signatures, ratifications, acceptances, approvals or accessions

State/Organisation	Date of Signature	Date of Deposit of Instrument
Afghanistan*	26 Sep. 1986	
Algeria*	24 Sep 1987	
Argentina		17 Jan. 1990 (access)
Australia*	26 Sep. 1986	22 Sep. 1987 (ratif.)
Austria	26 Sep. 1986	18 Feb 1988 (ratif.)
Bangladesh		7 Jan 1988 (access.)
Belgium	26 Sep 1986	
Brazil	26 Sep 1986	4 Dec. 1990 (ratif)
Bulgaria*	26 Sep 1986	24 Feb. 1988 (ratif.)
Byelorussian Soviet Socialist Republic*	26 Sep. 1986	26 Jan 1987 (ratif)
Cameroon	25 Sep 1987	
Canada*	26 Sep 1986	18 Jan. 1990 (ratif)
Chile	26 Sep. 1986	
China*	26 Sep. 1986	10 Sep 1987 (ratif.)
Costa Rica	26 Sep 1986	
Cote d'Ivoire	26 Sep 1986	
Cuba*	26 Sep 1986	8 Jan. 1990 (ratif)
Cyprus		4 Jan 1989 (access.)
Czechoslovakia*	26 Sep 1986	26 Sep 1986 (on sign)
Democratic People's Republic of Korea*	29 Sep 1986	
Denmark	26 Sep. 1986	26 Sep 1986 (on sign)
Egypt*	26 Sep 1986	6 Jul 1988 (ratif.)
Finland	26 Sep 1986	11 Dec 1986 (approv)
France*	26 Sep 1986	6 Mar 1989 (approv)

* Reservation/declaration deposited upon or following signature/ratification

State/Organisation	Date of Signature	Date of Deposit of Instrument
Germany, Federal Republic of* 1	26 Sep 1986	14 Sep 1989 (ratif)
Greece*	26 Sep 1986	
Guatemala	26 Sep 1986	8 Aug 1988 (ratif)
Holy See	26 Sep. 1986	
Hungary* 2.	26 Sep 1986	10 Mar 1987 (ratif)
Iceland	26 Sep. 1986	27 Sep 1989 (ratif)
India*	29 Sep. 1986	28 Jan 1988 (ratif)
Indonesia*	26 Sep 1986	
Iran, Islamic Republic of	26 Sep 1986	
Iraq*	12 Aug 1987	21 Jul 1988 (ratif)
Ireland*	26 Sep 1986	
Israel	26 Sep. 1986	25 May 1989 (ratif)
Italy*	26 Sep 1986	8 Feb 1990 (ratif)
Japan	6 Mar 1987	9 Jun 1987 (accept)
Jordan	2 Oct 1986	11 Dec 1987 (ratif)
Korea, Republic of		8 Jun 1990 (access)
Lebanon	26 Sep. 1986	
Liechtenstein	26 Sep. 1986	
Luxembourg	29 Sep 1986	
Malaysia*	1 Sep 1987	1 Sep 1987 (on sign)
Mali	2 Oct 1986	
Mexico	26 Sep 1986	10 May 1988 (ratif)
Monaco	26 Sep 1986	19 Jul 1989 (approv)
Mongolia* 2	8 Jan 1987	11 Jun 1987 (ratif)
Morocco	26 Sep. 1986	
Netherlands*	26 Sep. 1986	
New Zealand		11 Mar 1987 (access)
Niger	26 Sep 1986	
Nigeria	21 Jan 1987	10 Aug 1990 (ratif)
Norway	26 Sep 1986	26 Sep 1986 (on sign)
Pakistan		11 Sep 1989 (access)
Panama	26 Sep 1986	

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* Reservation/declaration deposited upon or following signature/ratification

1 The Convention was signed by the former German Democratic Republic on 26th September 1986 and instrument of ratification deposited by it on 29th April 1987 According to a note of 4th October 1990 from the Federal Republic of Germany to the Director General of the IAEA, following the accession by the German Democratic Republic to the Federal Republic of Germany with effect from 3rd October 1090, agreements to which the Federal Republic of Germany is a Contracting Party shall, with the exception of certain treaties not relevant to the Agency, retain their validity and the rights and obligations arising therefrom shall also relate to the territory of the former Democratic Republic

2 Reservation/declaration subsequently withdrawn

State/Organisation	Date of Signature	Date of Deposit of Instrument
Paraguay	2 Oct 1986	
Poland*	26 Sep 1986	24 Mar 1988 (ratif)
Portugal	26 Sep 1986	
Romania		12 Jun 1990 (access)
Saudi Arabia		3 Nov. 1989 (access)
Senegal	15 Jun. 1987	
Sierra Leone	25 Mar 1987	
South Africa	10 Aug 1987	10 Aug. 1987 (ratif)
Spain	26 Sep 1986	13 Sep. 1989 (ratif)
Sri Lanka		11 Jan 1991 (access)
Sudan	26 Sep 1986	
Sweden	26 Sep 1986	27 Feb. 1987 (ratif)
Switzerland	26 Sep 1986	31 May 1988 (ratif)
Syrian Arab Republic	2 Jul 1987	
Thailand*	25 Sep 1987	21 Mar 1989 (ratif)
Tunisia	24 Feb 1987	24 Feb. 1989 (ratif)
Turkey*	26 Sep 1986	3 Jan. 1991 (ratif)
Ukrainian Soviet Socialist Republic*	26 Sep 1986	26 Jan 1987 (ratif)
Union of Soviet Socialist Republics*	26 Sep 1986	23 Dec. 1986 (ratif)
United Arab Emirates*		2 Oct 1987 (access)
United Kingdom of Great Britain and Northern Ireland*	26 Sep 1986	9 Feb 1990 (ratif)
United States of America*	26 Sep. 1986	19 Sep. 1988 (ratif.)
Uruguay		21 Dec 1989 (access)
Viet Nam, Socialist Republic of		29 Sep 1987 (access)
Yugoslavia	27 May 1987	8 Feb 1989 (ratif)
Zaire	30 Sep 1986	
Zimbabwe	26 Sep 1986	
World Health Organisation*		10 Aug. 1988 (access)
World Meteorological Organisation*		17 Apr 1989 (access)

CONVENTION ON ASSISTANCE IN THE CASE OF A NUCLEAR ACCIDENT OR RADIOLOGICAL EMERGENCY

Status of signatures, ratifications, acceptances, approvals or accessions

State/Organisation	Date of Signature	Date of Deposit of Instrument
Afghanistan*	26 Sep 1986	
Algeria*	24 Sep 1987	
Argentina		17 Jan. 1990 (access)

* Reservation/declaration deposited upon or following signature/ratification

State/Organisation	Date of Signature	Date of Deposit of Instrument
Australia*	26 Sep 1986	22 Sep 1987 (ratif)
Austria	26 Sep 1986	21 Nov 1989 (ratif)
Bangladesh		7 Jan 1988 (access)
Belgium	26 Sep. 1986	
Brazil	26 Sep 1986	4 Dec 1990 (ratif)
Bulgaria*	26 Sep 1986	24 Feb 1988 (ratif)
Byelorussian Soviet Socialist Republic*	26 Sep 1986	26 Jan 1987 (ratif)
Cameroon	25 Sep 1987	
Canada*	26 Sep 1986	
Chile	26 Sep 1986	
China*	26 Sep 1986	10 Sep 1987 (ratif)
Costa Rica	26 Sep. 1986	
Cote d'Ivoire	26 Sep 1986	
Cuba*	26 Sep 1986	8 Jan 1991 (ratif)
Cyprus		4 Jan 1989 (access)
Czechoslovakia*	26 Sep 1986	4 Aug 1988 (ratif)
Democratic People's Republic of Korea*	29 Sep 1986	
Denmark	26 Sep 1986	
Egypt*	26 Sep 1986	17 Oct 1988 (ratif)
Finland	26 Sep 1986	27 Nov 1990 (approv)
France*	26 Sep. 1986	6 Mar 1989 (approv)
Germany, Federal Republic of* 1	26 Sep 1986	14 Sep 1989 (ratif)
Greece*	26 Sep 1986	
Guatemala	26 Sep 1986	8 Aug 1988 (ratif)
Holy See	26 Sep. 1986	
Hungary* 2	26 Sep 1986	10 Mar 1987 (ratif)
Iceland	26 Sep 1986	
India*	29 Sep 1986	28 Jan 1988 (ratif)
Indonesia*	26 Sep. 1986	
Iran, Islamic Republic of	26 Sep 1986	

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* Reservation/declaration desposited upon or following signature/ratification

1 The Convention was signed by the former German Democratic Republic on 26th September 1986 and instrument of ratification deposited by it on 29th April 1987 According to a Note of 4th October 1990 from the Federal Republic of Germany to the Director General of the IAEA, following the accession by the German Democratic Republic to the Federal Republic of Germany with effect from 3rd October 1990, agreements to which the Federal Republic of Germany is a Contracting Party shall, with the exception of certain treaties not relevant to the Agency, retain their validity and the rights and obligations arising therefrom shall also relate to the territory of the former German Democratic Republic

2 Reservation/declaration subsequently withdrawn

State/Organisation	Date of Signature	Date of Deposit of Instrument
Iraq*	12 Aug 1987	21 Jul 1988 (ratif)
Ireland*	26 Sep 1986	
Israel	26 Sep 1986	25 May 1989 (ratif.)
Italy	26 Sep 1986	25 Oct 1990 (ratif)
Japan*	6 Mar 1987	9 Jun 1987 (accept.)
Jordan	2 Oct. 1986	11 Dec 1987 (ratif)
Korea, Republic of*		8 Jun 1990 (access)
Lebanon	26 Sep 1986	
Libyan Arab Jamahiriya		27 Jun 1990 (access)
Liechtenstein	26 Sep 1986	
Malaysia*	1 Sep 1987	1 Sep 1987 (on sign)
Mali	2 Oct 1986	
Mexico	26 Sep 1986	10 May 1988 (ratif.)
Monaco	26 Sep 1986	19 Jul 1989 (approv)
Mongolia* 2	8 Jan 1987	11 Jun 1987 (ratif)
Morocco	26 Sep 1986	
Netherlands*	26 Sep. 1986	
New Zealand*		11 Mar 1987 (access)
Niger	26 Sep 1986	
Nigeria	21 Jan 1987	10 Aug 1989 (ratif)
Norway*	26 Sep 1986	26 Sep 1986 (on sign)
Pakistan		11 Sep 1989 (access)
Panama	26 Sep 1986	
Paraguay	2 Oct 1986	
Poland*	26 Sep 1986	24 Mar 1988 (ratif)
Portugal	26 Sep 1986	
Romania		12 Jun 1990 (access)
Saudi Arabia		3 Nov. 1989 (access)
Senegal	15 Jun 1987	
Sierra Leone	25 Mar 1987	
South Africa*	10 Aug 1987	10 Aug 1987 (ratif.)
Spain	26 Sep. 1986	13 Sep 1989 (ratif.)
Sri Lanka		11 Jan. 1991 (access)
Sudan	26 Sep 1986	
Sweden	26 Sep 1986	
Switzerland	26 Sep 1986	31 May 1988 (ratif)
Syrian Arab Republic	2 Jul. 1987	
Thailand*	25 Sep. 1987	21 Mar 1989 (ratif)
Tunisia	24 Feb 1987	24 Feb 1989 (ratif)
Turkey*	26 Sep 1986	3 Jan 1991 (ratif.)
Ukrainian Soviet Socialist Republic*	26 Sep 1986	26 Jan 1987 (ratif)
Union of Soviet Socialist Republics*	26 Sep 1986	23 Dec 1986 (ratif)
United Arab Emirates		2 Oct 1987 (access)

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* Reservation/declaration deposited upon or following signature/ratification

2 Reservation/declaration subsequently withdrawn

State/Organisation	Date of Signature	Date of Deposit of Instrument
United Kingdom of Great Britain and Northern Ireland*	26 Sep. 1986	9 Feb 1990 (ratif)
United States of America*	26 Sep 1986	19 Sep 1988 (ratif)
Uruguay		21 Dec 1989 (access)
Viet Nam, Socialist Republic of		29 Sep 1987 (access)
Zaire	30 Sep 1986	
Zimbabwe	26 Sep 1986	
Food and Agriculture Organisation*		19 Nov 1990 (access)
World Health Organisation*		10 Aug 1988 (access)
World Meteorological Organisation*		17 Apr 1990 (access)

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* Reservation/declaration deposited upon or following signature/ratification

2 Reservation/declaration subsequently withdrawn

TEXTS

JOINT DECLARATION ON CO-OPERATION ON THE PEACEFUL USE OF NUCLEAR ENERGY

(25th March 1991)

by the Governments of Belgium, France, the Federal Republic of Germany and the United Kingdom.

Having regard to

- the share of nuclear power in our energy balances,
- its substantial contribution to the diversification of energy supplies, and therefore to European security of supply,
- the long-term goals of the European Community's energy and technology policies, and the prospect of completion of the Single Market for Energy,
- the objective of stabilization by the year 2000 of the emissions of CO_2 in the EC at their 1990 level, implying that nuclear power, which is free of CO_2 emissions, will remain indispensable, in this respect, as states using nuclear power to produce electricity, we already make a significant contribution to the protection of European and world-wide environment,

we consider that together with energy efficiency, development of cost-effective renewable energy sources and a greater use of low CO_2 emitting fuels, the use of nuclear energy provides one appropriate response to the challenges now confronting the entire planet, provided that its development as an economic energy source takes place in conditions of optimum safety, ensuring the best possible protection both for populations and for the environment

The achievement of a high level of nuclear safety, the benefit of which extends beyond the frontiers of each State, is a fundamental requirement for the design, construction and operation of nuclear installations A realisable solution to long-term disposal of nuclear waste is also a key condition for public acceptance

We reaffirm our endorsement of the principle, set out in the Tokyo Declaration of 1986, that each country bears responsibility for the safety of the design, manufacture, operation and maintenance of its nuclear installations Equally, we believe that the existence of nuclear energy programmes in our countries lay upon us responsibilities towards the international - especially the European - Community

We recognise the vital contribution of international co-operation to nuclear safety We have already benefited from the work done in the Community as well as in the IAEA and NEA, and we shall support all efforts to improve the technology of safe nuclear installations by means of constructive co-operation in these bodies

We have also developed fruitful areas of bilateral co-operation among ourselves As the next step, we now wish to expand these bilateral arrangements and to work together more closely in the field of nuclear energy

In this connection·

- we agree on the requirement for a high level of nuclear safety Wide-ranging exchanges between experts have already shown that there is increasing convergence on the application of safety standards in our countries and their achievement in practice, we shall seek to extend the existing co-operation between ourselves in this area,

- we shall make every effort to align safety objectives and safe practices by strengthening co-operation between us at all levels research, regulation and industry We believe that this co-operation will be a contribution to the harmonisation of safety standards along the lines defined by the Resolution of Council of Ministers dated 22nd July 1975 and its subsequent conclusions,

- we shall intensify the exchange of information on the operation of nuclear plants between our countries,

- moreover, to promote the spreading of best practice, we shall continue to develop joint reviews, attachments and exchanges of personnel between our regulatory authorities,

- we shall encourage the extension and the strengthening of existing co-operation between the different partners - utilities, manufacturers, R&D organisations - as regards the operation of nuclear reactors and the design of new reactors We consider that the governments and the regulatory authorities should be involved in this work We shall encourage such contacts as are needed for these purposes We believe that close collaboration of this kind is necessary for the future development of nuclear power and would contribute to the completion of the Single Market for Energy,

- the fuel cycle is an integral part of nuclear energy programmes We have common interests in this field and will encourage contacts between the relevant bodies We have common responsibilities and common concerns with the back end of the fuel cycle which includes the treatment of spent fuel, management of waste and decommissioning of nuclear installations We recognize the importance of providing for the disposal of radioactive waste and stress our commitment to finding and implementing the best practicable technologies at the highest levels of safety and environmental protection We believe that the best chance of finding satisfactory answers to this question is to work closely together We will strengthen the contacts already established between our waste management institutions,

- we shall make every effort to support Central and Eastern European countries in bringing their nuclear plants to a level of safety comparable to those of the Community Member States This can be done by a common strategy of the respective governments, and international organisations supported by all possible partners, utilities, manufacturers, R&D organisations

In conclusion, we confirm our will to develop our efforts in maintaining and improving nuclear safety in our countries on a permanent basis

Closer co-operation between our regulatory authorities, R&D organisations, utilities and manufacturers concerning both existing reactors and the new generation of nuclear power plants should contribute to the harmonization of objectives and practices among the Member States

As Member States of the European Community, we share a common responsibility in building a consensus about energy policy in Europe and the role attributed to nuclear energy within this European policy We also have a responsibility to try to associate the other part of Europe to this consensus

We have imposed upon ourselves very stringent safety requirements It is in our common interest that similar requirements be achieved in other countries operating nuclear plants As part of the responsibility arising from our use of nuclear power, we wish to express our commitment to co-operate in this respect with those countries

In recording our recognition that nuclear power, safely operated, has an important role to play in meeting future energy needs in an economic and environmentally beneficial manner, we confirm our intention to work to this end, both among ourselves and through the relevant international organisations

* * *

PROTOCOL FOR THE PROTECTION OF THE SOUTH-EAST PACIFIC AGAINST RADIOACTIVE POLLUTION*

(21st September 1989)

The High Contracting Parties,

Aware of the need to protect and preserve the maritime area of the South-East Pacific against radioactive pollution,

Recognizing the need to adopt measures for prohibiting all dumping and/or burial of radioactive wastes or other radioactive substances in the sea and/or on the sea-bed and subsoil thereof,

Bearing in mind the 1981 Convention for the Protection of the Marine Environment and Coastal Areas of the South-East Pacific,

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* This text is reproduced from the United Nations Law of the Sea Bulletin, No 15, May 1990

Have concluded the following Protocol

Article I

Geographical area

The area to which this Protocol applies shall be the maritime area of the South-East Pacific within the 200-mile maritime zone over which the High Contracting Parties exercise sovereignty and jurisdiction

This Protocol shall also apply to the entire continental shelf when the High Contracting Parties extend it beyond their 200 miles

Article II

General obligations

The High Contracting Parties agree to prohibit all dumping of radioactive wastes and other radioactive substances in the sea and/or on the sea-bed within the area to which this Protocol applies

The High Contracting Parties also agree to prohibit all burial of radioactive wastes and other radioactive substances in the marine subsoil within the area to which this Protocol applies.

For these purposes, "dumping" means any deliberate disposal at sea of radioactive wastes and other radioactive substances from vessels, aircraft, platforms or other man-made structures at sea; and any deliberate sinking at sea of vessels, aircraft, platforms or other man-made structures containing or transporting such wastes or other substances

Article III

Measures for avoiding pollution

The High Contracting Parties shall take the measures necessary for ensuring that activities under their jurisdiction or control are carried out in such a way as not to cause pollution damage to the other Contracting Parties, to their environment or to the zones situated beyond those in which the Contracting Parties exercise their sovereignty and jurisdiction The High Contracting Parties also undertake not to carry out the activities referred to in the preceding Article in the zones beyond those in which the Parties exercise their sovereignty and jurisdiction

Article IV

Enumeration of radioactive wastes or other radioactive substances

The prohibition established by Articles II and III shall cover the dumping and burial of all radioactive wastes or other radioactive substances considered as such in line with the recommendations of the competent international organisation which is at present the International Atomic Energy Agency

Where doubts exist as to whether a given waste or substance is radioactive or not, such waste or substance shall be included in the prohibition under Articles II and III pending confirmation by the Executive Secretariat, due account being taken of the recommendations of the International Atomic Energy Agency as to whether such waste or substance is harmless

Article V

Scientific and technological co-operation

The High Contracting Parties undertake to co-operate directly, through the Executive Secretariat or the competent international organisations, in science and technology and shall exchange data and information pertaining to compliance with the objectives of this Protocol

Article VI

Exchange of information

The High Contracting Parties undertake to exchange among themselves and to transmit, through the Executive Secretariat, information on·

(a) Programmes or measures of scientific, technical or other assistance between the Parties, which may include· training of scientific and technical personnel; providing equipment and services, and advice for evaluating and monitoring programmes,

(b) Programmes of research into new methods and techniques for dealing with the treatment of radioactive wastes and other radioactive substances,

(c) The results of the monitoring programmes, and

(d) The measures adopted, results obtained and difficulties encountered in implementing this Protocol

Article VII

Monitoring programmes

The High Contracting Parties, directly or in collaboration with the Executive Secretariat or with the competent international organisations, shall establish individual or joint programmes for monitoring the geographical area covered by this Protocol.

For this purpose, the High Contracting Parties shall appoint the authorities in charge of monitoring their respective maritime zones of sovereignty and jurisdiction and shall participate, to the extent possible, in international agreements to these ends, in zones outside the limits of their sovereignty and jurisdiction.

Article VIII

Co-operation in emergencies

The High Contracting Parties shall promote emergency programmes, individually or collectively, in order to prevent any incident that may result from the dumping of radioactive wastes and other radioactive substances

To this end, they shall maintain the necessary resources, including experts and equipment, for effective implementation of such programmes

Article IX

Training programmes

In formulating and executing training programmes, the High Contracting Parties shall endeavour to maintain optimum efficiency in carrying out the regional co-operation activities referred to in this Protocol

Article X

Action in cases of force majeure

If, by reason of force majeure, in order to safeguard human life on board vessels, aircraft, platforms or other man-made structures at sea, radioactive wastes or other radioactive substances are dumped in the area to which this Protocol applies, the High Contracting Parties shall co-operate to the fullest possible extent in order to counter without delay the danger of pollution to the environment

To this end, the High Contracting Parties undertake to co-ordinate the use of their communication media in order to ensure timely reception, transmission and dissemination of all information on such emergency measures

The information obtained shall be communicated immediately to any Contracting Parties that may be affected by the danger of pollution.

Article XI

Enactment of laws and regulations

The High Contracting Parties shall enact national laws and regulations to prohibit the dumping and burial of radioactive wastes and other radioactive substances

Article XII

Penalties

Each High Contracting Party undertakes to ensure compliance with the provisions of this Protocol and to take appropriate steps to prevent and penalize any activity in contravention thereof

Article XIII

Executive Secretariat

For the purposes of administering and implementing this Protocol, the High Contracting Parties agree to appoint the Permanent Commission for the South Pacific (CPPS) to serve as Executive Secretariat of the Protocol At their first meeting, the High Contracting Parties shall establish the procedure and financing for the performance of this function on behalf of the *above-mentioned international body*

Article XIV

Meetings of the High Contracting Parties

The High Contracting Parties shall hold regular meetings every two years and special meetings at any time at the request of two or more Parties

At their regular meetings the High Contracting Parties shall address, inter alia, the following matters with a view to adopting appropriate resolutions and recommendations

(a) The extent of compliance with this Protocol and the effectiveness of the measures adopted, as well as the need to develop other types of activity for carrying out the objectives of this Protocol,

(b) The need to amend or revise this Protocol and the advisability of extending or amending the resolutions and recommendations adopted under the Protocol,

(c) The adoption of monitoring, training and emergency programmes, and

(d) The development of any other function that may further the aims of this Protocol

Article XV

Entry into force

This Protocol shall enter into force sixty days after the date of deposit of the third instrument of ratification with the General Secretariat of the Permanent Commission of the South Pacific

Article XVI

Denunciation

This Protocol may be denounced by any High Contracting Party two years after its entry into force for such denouncing Party

The denunciation shall be effected by written notification to the Executive Secretariat which shall immediately communicate it to the High Contracting Parties

The denunciation shall take effect 180 days after the above-mentioned notification

Article XVII

Amendments

This Protocol may be amended only by unanimous decision of the High Contracting Parties. Amendments shall be subject to ratification and shall enter into force on the date of deposit of the third instrument of ratification with the Executive Secretariat

Article XVIII

Accession

This Protocol shall be open to accession by any coastal State of the South-East Pacific by unanimous invitation of the High Contracting Parties

Accession shall be effected by deposit of the relevant instrument with the Executive Secretariat which shall communicate it to the High Contracting Parties

This Protocol shall enter into force for an acceding State sixty days after the deposit of the relevant instrument

Article XIX

Reservations

No reservations to this Protocol shall be admissible

BIBLIOGRAPHY AND CURRENT EVENTS

CURRENT EVENTS

• INLA

Nuclear Inter Jura'91

The International Nuclear Law Association (INLA) will hold its tenth biennial Congress from 23rd to 26th September 1991, in Bath, United Kingdom The theme of Nuclear Inter Jura'91 will be "Nuclear Law and Nuclear Energy for the Future". The Congress is intended to provide a vehicle for members of INLA and other interested delegates from all over the world to review and discuss developments in laws and regulations relating to the peaceful uses of nuclear energy, both generally and with particular reference to man and his environment, and to examine and exchange views about legal problems relevant to the development of nuclear energy

The Congress will be arranged in five working sessions The first four sessions will deal with licensing and decommissioning, insurance and liability, nuclear supply and trade and radiological protection and radioactive waste management respectively The fifth session will be devoted to a review and discussion of the work of the previous sessions

Further information may be obtained from the INLA British Administrativ Committee, 11 Charles II Street, London, SW1Y 4QP, United Kingdom Telephone 071-389 6614.

New

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Many countries have adopted a special liability and insurance system for operators of nuclear installations as regards damage caused by a nuclear incident. This book describes the relevant international Conventions and studies the national legislation of the countries listed below using a standard framework to facilitate research and comparison The national studies decribe the nature of the liability, the type of nuclear damage covered, and the conditions for taking out financial security and for compensating victims. Where applicable, the studies are supplemented by information on the liability of operators of nuclear-powered ships

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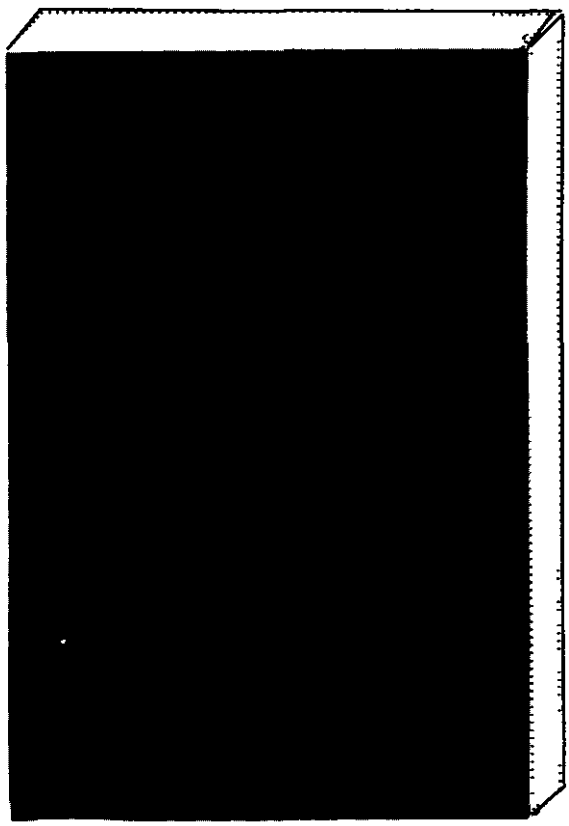

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