

NUCLEAR LAW BULLETIN No. 56

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations

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

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

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Foreword

This issue deals with a question of great topical interest – the status of legislation governing the peaceful uses of nuclear energy in Central and Eastern European countries. Readers are informed about regulatory and institutional developments in these countries. We should like, in this respect, to thank our contacts in these countries for their help in preparing this study. The *Supplement* to this *Bulletin* reproduces the Law of Ukraine of 8 February 1995 on the Use of Nuclear Energy and Radiation Safety.

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ARTICLES

The Nuclear Non-Proliferation Treaty: A Permanent Commitment to Disarmament and Non-Proliferation

by Laura Rockwood*
International Atomic Energy Agency

With a collective breath of relief and much applause, on Thursday, 11 May 1995 the Conference of the States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) agreed without a vote on the indefinite extension of the NPT¹. The decision was part of a carefully crafted package consisting of decisions on the extension itself², principles and objectives of non-proliferation and disarmament³ and a strengthened review process⁴ along with a resolution on the Middle East⁵. (The three decisions and the resolution are reproduced in the chapter "Texts" of this Bulletin.)

The NPT which entered into force on 5 March 1970, calls for the non-proliferation of nuclear weapons⁶ (Articles I and II), the application of International Atomic Energy Agency (IAEA) safeguards to the peaceful nuclear activities of non-nuclear-weapons States (NNWSs) (Article III), undertakings to facilitate the fullest possible exchange of equipment, materials and information for the peaceful uses of nuclear energy (Article IV) and to make available the potential benefits of peaceful nuclear explosions (Article V), along with commitments to pursue disarmament under strict and effective international control (Article VI). The Treaty also acknowledges the role of regional treaties – nuclear-weapons-free zones (NWFZs) – for the assurance of the total absence of nuclear weapons within their respective territories (Article VII).

The Treaty provides in Article VIII 3 for a five-year review of the operation of the Treaty by a Conference of the States Parties with a view to assuring that the purpose and provisions of the Treaty are being realized, which was first held in 1975. The three subsequent Review Conferences were conducted in 1980, 1985 and 1990. In 1975 and 1985, unlike in 1980 and 1990, the Conference was able to reach consensus on the Final Declaration of its review.

* Ms Rockwood, Senior Legal Officer, Legal Division, IAEA, participated in the Conference as a representative of the IAEA. The ideas expressed herein are the responsibility of the author and do not necessarily reflect the views of the IAEA.

The Treaty also provides in Article X 2 that

‘Twenty-five years after the entry into force of the Treaty a conference shall be convened to decide whether the Treaty shall continue in force indefinitely or shall be extended for an additional fixed period or periods. This decision shall be taken by a majority of the Parties to the Treaty.’

From the inception of the NPT the NNWSs party to the Treaty have seen the NWSs’ commitments under the Treaty to disarmament and to peaceful nuclear co-operation as *quid pro quos* for the NNWSs’ forswearing of nuclear weapons and other nuclear explosive devices. Most of these States perceived the prospect of extension of the NPT as a last opportunity for leveraging the NWSs into more rapid progress in disarmament – more specific commitments on particular disarmament measures and deadlines within which to achieve them. In fact the failure to achieve consensus on a Final Declaration in 1990 was a result of disagreement on the question of linkage of extension of the NPT to the achievement of specific disarmament measures (in particular the conclusion of a comprehensive nuclear test-ban Treaty (CTBT) before the 1995 Review and Extension Conference).⁷ These issues resurfaced with a vengeance in the preparatory phase of the extension process.

The Preparatory Committee

As a formal matter the process was initiated over two years ago with the adoption at the forty seventh session of the United Nations General Assembly of resolution 47/52 in which it took note of the decision of the parties to the NPT to form a preparatory committee for a conference to review the operation of the Treaty as provided for in Article VIII paragraph 3 of the Treaty and to decide on its extension as called for in Article X paragraph 2.

The Preparatory Committee (Prep Com) met four times over the next two years – the first in New York from 10 to 14 May 1993 – the second in New York from 17 to 21 January 1994 – the third in Geneva from 12 to 16 September 1994 and the fourth in New York from 23 to 27 January 1995.

While there was some debate in the Prep Com on substantive issues the focus of the Committee’s work was on procedural issues. However it would be disingenuous to dismiss these issues as simply procedural. Even the most basic questions – such as where the Conference was to be held and what it was to be called – reflected not only tactical⁹ but political¹⁰ considerations as well.

Two of the more critical procedural issues addressed at the Preparatory Committee meetings related to Rule 28 on the method of decision-making with respect to the extension. At one point in the Preparatory Committee’s work a proposal was tabled to permit a recessing of the Conference in the event that the Conference would be unable to reach an extension decision in the four weeks allocated to it. Language in the Rules of Procedure was ultimately agreed on which precluded such a scenario by providing that the Conference would only be closed when the decision required by Article X 2 of the NPT had been reached. The other issue which remained outstanding until just before the end of the Conference concerned voting – in particular what the procedures would be for voting in the event of multiple draft proposals and whether the voting should be secret or open.

Unable to resolve the outstanding issues on the Rules of Procedure even in a last minute working group held on 13 and 14 April and on the morning of the opening day of the Conference the Fourth Session of the Prep Com forwarded its report to the Conference.

While – as pointed out above – the lion’s share of the Prep Com’s work was focused on procedural issues there was a preview of the substantive issues which would be raised at the Conference.

The primary substantive issue related to the length and terms of the NPT’s extension. Of the three options available by operation of Article X 3 the Treaty could be extended indefinitely or for a fixed period or fixed periods. The effect of an indefinite extension would be to make the Treaty permanent – as are other multilateral

arms control and non-proliferation treaties (e.g. the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean and the Treaty on the Prohibition of Chemical Weapons). It would permit no termination of the Treaty absent agreement of all parties; withdrawal would still be possible but only by denunciation for extraordinary circumstances. This position was strongly advocated by the three NPT Depositary Governments—the United Kingdom, the Russian Federation and the United States—as well as many Western States. Extension for a fixed period would amount to automatic termination of the NPT absent amendment of the Treaty by decision of all parties. Such an option was originally proffered by Switzerland. The fixed periods option was the wild card in the exercise. As it permitted extension for the same or different periods of time, it would appear to have made sense only if accompanied by some decision-making mechanism (one such proposal was for a rolling 25-year period absent a decision to the contrary by a majority of parties). Whether this option permitted conditional extension was subject to differing view, not so much of a legal nature but of a political one. The Non-Aligned Movement (NAM) States position, with some support from non-NAM NNWSs, was that a conditional extension was the only way to hold the NWSs feet to the fire. The Western and Others Group (WEOG) espoused the view that it would weaken the States Parties' commitment to the NPT and to achieving its universality. China initially spoke only of a 'smooth decision'.

The proposals for conditional extension were premised on the perception of a lack of progress on disarmament by NWSs as called for by Article VI of the Treaty. This dissatisfaction was articulated in an early NAM paper on this issue which referred to growing imbalances between the obligations and responsibilities in the NPT, to the stalemate in the Conference on Disarmament on a comprehensive nuclear test ban treaty and to the need for a convention on the cut-off of the production of fissile material for explosive purposes (a cut-off treaty)¹¹. NAM's concern was that without the leverage of extension, the NWSs would not take seriously their disarmament obligations under the NPT and that further progress in the area of a CTBT, cut-off and security assurances would founder, particularly if the extension were indefinite and unconditional. In this regard, pressure was brought to bear for conditioning extension of the NPT on a time-bound framework and a target date for the total elimination of nuclear weapons, a target for conclusion of negotiations on a CTBT before the 1995 conference, an international convention on security assurances, and a cut-off treaty. Sympathy for this view was expressed by a number of Western NNWSs (Austria, Australia, Ireland, Japan, New Zealand, Sweden, Switzerland) who shared the view that the time was optimum to wrest from the NWSs commitments to specific disarmament measures within specified time frames. A number of these delegations declined initially to sign onto a Canadian petition calling for indefinite extension. On the other hand, at least four of the NWSs and other developed NNWSs espoused the view that conditional extension of the NPT premised on new obligations on the part of the Parties would amount to amendment of the Treaty and would weaken the underpinnings of the NPT.

In addition, with growing support from other developing country NNWSs, Iran took issue with the mechanism for and application of export controls and the nuclear suppliers' guidelines. Iran argued that export control regimes constituted a violation of the commitment under Article IV of the NPT to the fullest possible exchange between States Parties of equipment, materials and information for the peaceful uses of nuclear energy and a denial of the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination.

Thus, the lead-up to the Conference did not appear to bode well for the indefinite and unconditional extension of the NPT, particularly in light of the announcement by a number of Arab States, led by Egypt, of their insistence on Israel's adherence to the NPT as a condition for extension.

The Conference

The Conference was opened by Ambassador Pasi Patokallio of Finland, the Chairman of the fourth session of the Preparatory Committee, on Monday afternoon, 17 April 1995, with the election by acclamation of Ambassador Jayantha Dhanapala of Sri Lanka as the President of the Conference. Proslav Davinic, Director of the United Nations Center for Disarmament Affairs, was elected as Secretary-General of the Conference.

One hundred and seventy-five of the 178 States then party to the NPT participated in the Conference as did the United Nations and the International Atomic Energy Agency (IAEA). The Conference was also attended by ten non-party States¹² and Palestine as observers, nine observer agencies¹³ and 195 research institutes and non-governmental organizations. The Plenary Debate was participated in by 116 States Parties, of which over 30 were represented at the Foreign Minister level.

As discussed below, one of the seminal events of the Conference was the opening plenary statement of the South African Foreign Minister Alfred Nzo. In the course of his intervention, the Foreign Minister announced the support of South Africa, a member of NAM, for indefinite extension, and proposed the strengthening of the review process provided for in Article VIII 3 of the NPT through the adoption of a set of Principles for Nuclear Non-Proliferation and Disarmament. Rather than amendments to the Treaty or conditions for its extension which could lead to termination, the principles were introduced as a yardstick for the States Parties to use in measuring their non-proliferation and disarmament achievements. The broad issues to be taken into account would be the strengthened and full adherence to IAEA safeguards agreements, access to nuclear material and technology for peaceful purposes, progress towards the establishment of a CTBT, a commitment to regional NWFZs and the binding security assurances for NNWSs. The foreign Minister also proposed the establishment of an open-ended committee which would meet at fixed intervals during the period between Review Conferences, and which would consider specific ways on how to strengthen the Treaty and the non-proliferation regime in all its aspects. It was this set of proposals which eventually permitted agreement on the indefinite and unconditional extension of the Treaty.

The provisional agenda and allocation of items to the Main Committees of the Conference, as proposed by the Preparatory Committee (NPT/CONF 1995/1) were also adopted at the opening session. However, the failure to reach consensus on Rule 28 3(f) of the Rules of Procedure resulted in the Conference's agreeing to apply the proposed Rules of Procedure only provisionally until its sixteenth meeting on the eighteenth day of the Conference.

The Main Committees were assigned the following areas for review:

Main Committee I

Disarmament, in particular Articles I and II (non-proliferation), Article VI (disarmament), Article VII (nuclear-weapons-free zones) and security assurances.

Main Committee II

Safeguards and nuclear-weapon-free zones, in particular Article III (safeguards), especially in relation to Article IV (unhampered trade for peaceful nuclear purposes), Articles I and II in relation to Articles III and IV and Article VII.

Main Committee III

The inalienable right of all Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination, in particular Articles III(3) and IV, Article V (peaceful nuclear explosions), Article X (extension) and measures aimed at promoting wider acceptance of the Treaty.

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Main Committee I

The Chairman of MC I was Ambassador Isaac Ayewah of Nigeria, whose Vice Chairmen were Richard Starr of Australia and Anatoli Zienko of Ukraine. Under its consideration of Articles I and II, Article VI and Article VII, the Committee's work included a review of the following issues: compliance with the non-proliferation undertakings in Articles I and II by NWSs and NNWSs, respectively, progress on disarmament, a convention on the cutoff of the production of fissile material for explosive purposes, a comprehensive nuclear test ban treaty, and nuclear-weapons-free zones (NWFZs). It was also responsible for consideration of security assurances.

The subject of security assurances¹⁴ was immediately assigned to a working group under Vice-Chairman Starr. While acknowledging the early-April unilateral declarations of the nuclear-weapons States on negative security assurances¹⁵ and the Security Council Resolution of 11 April 1995 on positive security assurances¹⁶, many NAM delegations pressed for language which would call for the conclusions of an internationally binding instrument committing NWSs not only to assist in the event of a nuclear threat against a NNWS party to the Treaty (positive security assurances) but to not use or threaten to use nuclear weapons against such States.

By the end of the first week, the confrontational tone of the Committee's deliberations had been set. This was believed to be largely attributable to the highly sensitive political nature of a number of the issues.

In its review of Articles I and II of the Treaty, the debate focused on nuclear-weapon States' compliance as well as non-nuclear-weapon States' compliance with the Treaty. Specifically, the issue was raised of NWSs' assistance to other NWSs in the development of nuclear weapons and nuclear weapons technology, as well as the deployment on non-nuclear-weapon States' territory of NWSs' nuclear weapons. As regards language on non-compliance by NNWSs, the issues of Iraq and the DPRK were considered to be more appropriate for MC II within its discussions of safeguards under Article III.

The debate on Article VI, with reference to disarmament and cessation of the nuclear arms race, was confrontational and tense. By the end of the second week, the Committee was stalemated on the issue of whether the arms race had ended or was continuing.

The security assurances working group continued its deliberations, with the Mexican delegation circulating a draft protocol for the Committee's consideration. Other working groups were also set up to consider in detail the review of Articles I and II and of Article VI.

The third week produced little consensus on any of the MC I issues, apart from agreement on text taking note of NNWSs' compliance with Article II of the Treaty with the exceptions which have been noted by the international community'. The Chairman's draft on Article VI proved to be no vehicle for compromise, either, and no agreement could be reached on language concerning threats from certain non-parties to the Treaty.

Although MC I met over the following weekend, it was not possible to forward to the Drafting Committee anything more than a heavily square-bracketed document which included all alternative texts. On Monday of the last week, the Committee submitted the report to the Plenary, which forwarded it to the Drafting Committee.

Main Committee II

MC II was chaired by Ambassador Andre Erdos of Hungary, assisted by Vice-Chairmen Enrique de la Torre of Argentina and Rajab Sukayri of Jordan. Unlike the debate in MC I, the discussions in Main Committee II were more congenial. Under the direction of the Hungarian ambassador, the Committee addressed such issues as the strengthening of safeguards, the safeguarding of plutonium and highly enriched uranium of NWSs, export controls, nuclear-weapon-free zones, the DPRK, Iraq and the non-hampering of NNWSs' development of peaceful nuclear programmes. By the end of the first week, the working group on safeguards had made significant progress on draft language.

In the plenary of MC II Iran raised the issue of export controls and of the IAEA's role as the sole authority to verify compliance with IAEA safeguards agreements and with the NPT. Iran forcefully pursued its efforts to establish a forum to address export guidelines and trigger lists.

Iraq and the DPRK each had proposed language with respect to their respective non-compliance with Iraq requesting acknowledgement of its co-operation with the IAEA and the DPRK objecting to inclusion of any text whatsoever in light of its assertion that their issue was now a bilateral one between the US and the DPRK.

In the third week the working group on safeguards achieved progress on text concerning State systems of accounting and control safeguards in NWSs the financing of safeguards plutonium and physical protection of nuclear material. The debate remained open on the issue of the IAEA's role as the sole responsibility for verifying compliance. This debate rolled over into the last week as well with language being generally accepted to the effect that the IAEA had sole responsibility for verifying compliance with its safeguards agreements.

The working group on NWFZs continued its discussions under Ambassador de la Torre of Argentina the main issues being the significance of NWFZs the role of NWSs in creating and ensuring the effectiveness of such zones and disagreement on language concerning a NWFZ in the Middle East and a NWFZ in Central Europe.

On Friday of the third week MC II agreed to forward its draft report to the Plenary of the Conference with square brackets on the issues of Iraq the DPRK the role of the IAEA (the issue of sole responsibility) and a NWFZ in the Middle East (paras 44 and 45 of the MC II report MC II/1 submitted to the Conference). Language was also proffered on the negotiation and conclusion of a cut-off convention for possible consideration in the light of MC I discussions.

Main Committee III

Ambassador Jaap Ramaker of the Netherlands chaired MC III the Vice-Chairmen were Yanko Yanev of Bulgaria and Gustavo Alvarez Goyoaga of Uruguay. MC III addressed the issues of a nuclear safety Convention physical protection a convention on the safety of radioactive waste management an international plutonium regime trafficking export controls and technical co-operation.

Although the Committee spent considerable time on the question of attacks on nuclear installations the most intensive debate centered on export regimes. While a number of Western delegations asserted that export controls belonged more properly under MC II NAM headed by Indonesia and Nigeria pushed for discussion under MC III. Iran asserted that control regimes belonged under MC II and that the unhampered transfer of nuclear technology belonged in MC III.

By the end of the second week the outstanding issues were transboundary questions sea transport extension of the nuclear safety convention radiological waste (objections having been raised to the reference to nuclear waste arising from military activities) and peaceful nuclear explosions (China objected to the reference to PNEs in the context of the CTBT negotiations). In the course of the third week MC III was able by Thursday evening to reach consensus on its entire draft report including the financing of technical co-operation peaceful nuclear explosions attacks on nuclear installations nuclear waste and access to nuclear technology. However the next day at MC III's plenary session the text on access to nuclear technology was once again square bracketed.

As discussed below informal agreement on language in paragraph VI.3 of MC III's report to the Conference which urged India, Israel and Pakistan by name as non-parties to the Treaty which operate unsafeguarded sensitive nuclear facilities to adhere to the NPT was to play a pivotal role in permitting consensus on the resolution adopted by the Conference on the Middle East and thus on the package which led to agreement on the extension discussion.

Drafting Committee

Ambassador Tadeusz Strulak of Poland chaired the Drafting Committee with the assistance of his Vice-Chairmen Nabil Fahmy of Egypt and Pasi Patokallio of Finland. After receiving the three draft reports of the Main Committees, the Drafting Committee met in plenary, but broke up shortly thereafter into new or reconstituted working groups. Articles I and II, under Ambassador Patokallio, security assurances under Ambassador Starr, export controls, under Mr Philip MacKinnon of Canada, NWFZs under Ambassador de la Torre, and Article VI under Ambassador Strulak.

As a result of the continued work of the reconstituted drafting group under Mr MacKinnon's chairmanship over the period 4 to 9 May, and separate bilateral discussions held individually with some 25 to 30 delegations over the last three days of the Conference, informal agreement was reached on a draft text on export controls on the role of the IAEA in verification of compliance with its safeguards agreements, and on the deletion of the only remaining disputed text in the MC III report under Article IV concerning restrictions on free and unimpeded access to peaceful nuclear technology. Although most of the text was the product of the broadly-based working group and the text as a whole received the agreement of interested delegations in informal consultations and the bracketed text had been introduced to the Drafting Committee and the final text introduced in the consultations led by the Chairman on the final day, the inability to achieve consensus on the other language of the Final Declaration prevented formal adoption of the agreed text.

At the same time, the DPRK circulated a letter indicating that it would not participate in adopting decisions or documents at the conference, asserting that the document drafted at the conference meetings unreasonably represents the nuclear issue of the Korean peninsula according to the outdated prejudices' and that certain countries are using the conference against [the DPRK] as they are only interested not in settling but in further complicating the nuclear issue of the Korean peninsula by disregarding and crippling the DPRK-US agreed framework which is aimed at fair resolution of it. This would have permitted consensus on the DPRK language in the MC II text, leaving square brackets only on the text concerning Iraq.

While it had been hoped originally that a draft summary of MC I issues tabled by the Chairman would achieve a consensus which MC I was unable to reach, this proved to be impossible. On the last day of the Conference, the President of the Conference made one final attempt to create consensus on a Final Declaration language for the Article I and II and Article VI language, but was unable to do so.

The Extension Decision

Parallel with the work of the Main Committees, the President of the Conference held extensive consultations with an informal group of 25 representatives, mostly ambassadors from the Conference on Disarmament, including a representative selection of delegates from various regions. He used as a basis for these negotiations the proposals tabled by South Africa on the strengthened review process and on principles and objectives of non-proliferation and disarmament.

Between 25 and 27 April (Tuesday to Thursday of the second week of the Conference), the Ministers of the Co-ordinating Bureau of NAM met in Bandung, Indonesia. The Non-Aligned States Parties to the Treaty issued a statement recognizing the usefulness of the NPT in promoting international peace and security. The Ministers expressed concern that the NWSs had not adhered fully to the obligations under the Treaty and identified a number of measures for a genuine and comprehensive disarmament regime, including a CTBT, internationally legally binding instruments providing comprehensive security assurances, a cut-off in the production and elimination of stockpiling of fissile materials and other nuclear devices for weapons purposes, the elimination of nuclear weapons and other weapons of mass destruction, the establishment of NWFZs and the unimpeded and non-discriminatory transfer of nuclear technology. It also recommended that five-yearly review conferences be convened to conduct proper and comprehensive reviews of the operation of the Treaty. While agreeing that the Treaty should be extended in accordance with Article X 2 of the NPT, the statement fell

short of recommending the specific terms of such extension leaving open for each NAM Member State to adopt its own position with respect to extension of the Treaty

The Conference President continued to work on the principles and objectives and the strengthened review process with a view to achieving a package consensus on the extension

Agreement was reached on the review process in the middle of the third week. The draft decision called for continuation of the quinquennial Review Conferences supplemented by Preparatory Committee meetings to be held every year before the next Review Conference starting two years after the previous Review Conference. The purpose of the meetings would be *inter alia* to consider principles, objectives and ways in order to promote the full implementation of the Treaty and to make recommendations thereon to the Review Conference with a forward perspective, not just a retrospective view.

By the end of the third week, as required by the Rules of Procedure, three extension proposals had been submitted to the Conference. The first was tabled by Mexico and consisted of a decision for indefinite extension of the Treaty and called for a series of steps toward disarmament¹⁷. The second was tabled by the Canadian delegation which announced that in excess of 90 States were prepared to co-sponsor a draft decision in the form of a single sentence statement which stated simply that the Conference of the States Parties had decided that the Treaty shall continue in force indefinitely¹⁸. It eventually was co-sponsored by 110 States. The third draft decision was also submitted by Indonesia, on behalf of eleven (later fourteen) like-minded NAM States¹⁹. The Indonesian proposal provided for continuation in force of the Treaty for rolling fixed periods of twenty five years absent a majority decision to the contrary. It also called for continuation of the review process and assigned the task *inter alia* of making recommendations for the attainment of specified objectives. The resolution was co-sponsored by Iran, Jordan, the DPRK, Malaysia, Mali, Myanmar, Nigeria, Papua New Guinea, Thailand and Zimbabwe.

The President of the Conference also submitted a draft extension decision. The language went through a number of iterations: at one stage providing that the Conference decided by consensus that a majority existed in favour of indefinite extension; at another stage that the Conference, acknowledging the existence of a majority of States Parties which supported indefinite extension, decided by consensus that the Treaty should continue in force indefinitely. It was ultimately modified to remove any reference to consensus and to read as follows:

The Conference decides that, as a majority exists among States party to the Treaty, for its indefinite extension in accordance with its Article X.2, the Treaty shall continue in force indefinitely.

Ad referendum agreement on a decision on the principles and objectives was not far behind, drawing from the NAM proposals and incorporating, at the request of the Mexican delegation, a timeframe for conclusion of a CTBT no later than 1996. The draft decision referenced seven principles and objectives covering the issues of universality, non-proliferation, nuclear disarmament (including references to a CTBT and the immediate commencement and early conclusion of negotiations on a cut-off Treaty), NWFZs (with specific reference to the Middle East and to the role of NWSs in ensuring the maximum effectiveness of such zones), security assurances, IAEA safeguards and support for their strengthening and a call to NWSs to place nuclear material transferred from military use to peaceful use under IAEA safeguards.

By Wednesday, the President had been able to achieve agreement not only on language for draft decisions on the entire package, but on a resolution on the Middle East, all of which were introduced at the Plenary, with an indication that a decision on the texts would be taken the following morning.

The Middle East resolution started as a draft sponsored by 12 Arab States and included a specific reference to Israel. After extensive and difficult negotiations, a compromise was reached whereby the Depositary States were able to sponsor an alternative resolution calling for the establishment of a nuclear-weapons free zone in the Middle East, omitting any specific reference to India, Israel or Pakistan, while making reference to the language agreed ad referendum in MC III (see above).

After the Plenary was opened on Thursday morning, the Iranian delegation objected to the Middle East resolution on the basis of its opposition to the Middle East peace process. The meeting was suspended for two hours until agreement could be sorted out with the modification of the first operative paragraph in the resolution.

The Plenary was finally resumed just after noon on Thursday and moved rapidly to adopt the three draft decisions and the amended draft resolution.

With the extension issue settled, the Drafting Committee was requested to renew its efforts to achieve consensus on a Final Review Document and met for a marathon night session at which not even the most simple proposals could find consensus. The following day, the President of the Conference called a meeting of the General Committee as the Drafting Committee and attempted to hammer out some consensus review text. At 6:00, however, it was clear that there was no hope of achieving an agreed text. The President, therefore, convened the Plenary once again, asked the Drafting Committee to meet briefly to agree on its final report of its deliberations and report back to the Plenary, and the Conference was brought to a close with States wishing to do so making final statements.

Notes and References

- 1 NPT/CONF 1995/32(Part I para 30)
- 2 NPT/CONF 1995/32/DEC 3
- 3 NPT/CONF 1995/32/DEC 2
- 4 NPT/CONF 1995/32/DEC 1
- 5 NPT/CONF 1995/32/RES/1
- 6 Pursuant to Article IX 3 of the NPT, a nuclear weapon State is defined as one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.
- 7 See Rockwood, L. "The Non-Proliferation Treaty 1990 Review Conference: Looking Towards 1995." *Nuclear Law Bulletin* No. 46, December 1990.
- 8 However, the NWSs indicated a more accommodating position in 1995 with respect to a CTBT. In a letter dated 17 April 1995 from the Representatives of France, the Russian Federation, the United Kingdom and the United States to the Secretary-General of the Conference, the four NWSs welcome[d] the important progress made at the Conference on Disarmament in the multilateral negotiations on a comprehensive nuclear test-ban Treaty to which [they] were all contributing actively. They also reaffirmed their determination to continue to negotiate intensively as a high priority, a universal and multilaterally and effectively verifiable comprehensive nuclear test-ban treaty, and pledged their support for its conclusion without delay.
- 9 The choice of New York over Geneva as the venue for the Conference was influenced by the requirement of a majority decision by the States Parties and the perception that achieving a majority decision would be easier in New York as more States Parties had representation there than in Geneva.

- 10 The debate over the title of the Conference reflected States' positions on the order in which the extension decision and the review process should be conducted which reflected the differing political views as to whether the extension decision should be taken before the review was carried out (US, Russia and Germany) or held hostage to conclusion of a Final Declaration on the review (as suggested by Iran). The compromise solution was to call for the reports, take a decision on the extension and then adopt the final documents.
- 11 On 16 December 1993, the UN General Assembly adopted resolution A/RES/48/75 L recommending the negotiation in the most appropriate international forum of a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. Just before the opening of the NPT Conference, the Conference on Disarmament in Geneva agreed to the setting up of an ad hoc committee to negotiate a cut-off Treaty. The committee is to report to the CD on progress by the end of 1995. In the course of these discussions, a small number of States, including Pakistan and Egypt, argued for the inclusion of stockpiles, not just future production, of fissile materials in a cut-off convention, a proposal which is generally believed to create a stumbling block to acceptance.
- 12 Angola, Brazil, Chile, Cuba, Djibouti, Israel, Oman, Pakistan, United Arab Emirates and Vanuatu.
- 13 The Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, the European Community, the League of Arab States, the South Pacific Forum, the International Committee of the Red Cross, the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development, the North Atlantic Assembly, the Organisation of African Unity and the Organisation of the Islamic Conference.
- 14 At the urging of the NNWSs and as a trade-off for such States having forsworn nuclear weapons, the UN Security Council in 1968 had adopted resolution 255 welcoming the NPT depositary States' positive security assurances to come to the aid of any NNWS Party to the Treaty that was a victim of an act or an object of a threat of aggression in which nuclear weapons are used. Under pressure from the NNWS Parties to the Treaty, which contended that assurances against the use or threat of use of nuclear weapons were also necessary to avoid military insecurity on the part of NNWSs which might provoke such States to reserve or exercise their right to develop nuclear weapons as a national security measure, the five NWSs at the 1978 UN Special Session on Disarmament issued unilateral negative security assurances in which they declared their respective intentions to refrain from the use or threat of use of nuclear weapons against NNWSs party to the NPT.
- 15 S/1995/261, S/1995/262, S/1995/263, S/1995/264 and S/1995/265.
- 16 Security Council resolution 948, 11 April 1995.
- 17 NPT/CONF 1995/L 1/Rev/1.
- 18 NPT/CONF 1995/L 2.
- 19 NPT/CONF 1995/L 3.

Regulation of Radioactive Waste Management and the Growth of Europe*

by Paul Bowden
Freshfields, London

In Europe we live in interesting times. The frontiers of the European Union are being pushed outward. New Member States have joined or will soon join the Union, each bringing with it its own traditions of law and policy, including in the nuclear field. At the same time the legislative bedrock of the Union is starting to undergo a process of gradual but significant seismic shift. This short comment piece is intended to entertain a little speculation about what these large-scale trends might mean over the next few years for the nuclear waste management industry in the European Union — and for its customers outside the Union.

The key question for the future is: *Who will have the legislative say in the radioactive waste management field?*

There are, of course, three separate European Communities: the European Coal and Steel Community (ECSC), the European Community (EC) and the European Atomic Energy Community (Euratom). Each of these Communities is established by separate treaty and each has a separate legislative competence. Of the three, it is Euratom that the European radioactive waste management sector conventionally regards as the primary source of legislation and regulation governing its activities. Indeed, we are often tempted to think of Euratom as having an exclusive competence in the field of radioactive waste management control. In most minds, Euratom 'has the legislative say' in this area. By contrast, the role of the European Communities in radioactive waste management regulation tends to be seen as somewhat secondary, its relevant competence as limited.

The legislative regimes relating to movements of waste, to and from and within the European Union, illustrate this point. On the face of it, there appears to be a neat division of responsibilities between Euratom and the European Community. The principal measure relating to **radioactive** waste movements is a Euratom Directive¹ and the legislation covering **non-radioactive** waste movements is EC-based².

There are important distinctions between these two waste regulation systems. They have been put in place by means of legislative instruments which have travelled very different paths. They reflect not only the separate competences of the EC and the Euratom treaties but also the differences of structure and approach between the EC and Euratom in their respective legislative processes, all of which may have a profound effect on the substance of the legislation which each creates. Two particular points are worth noting.

First, Euratom Directives are made under Article 30 of the Euratom Treaty. This involves the Commission making legislative proposals to the Council of Ministers, who in turn *consult* the Parliament. Adoption is by way of a qualified majority. Parliament and its elected members play little more than a walk-on role. Contrast this with the legislative path of an EC Directive. Under the **co-operation procedure**³ the Parliament may propose amendments to the legislation; it may reject the legislative text and it can ultimately force the Council to act on the basis of unanimity in adopting the proposed Directive. Under the **co-decision procedure**⁴ introduced at Maastricht, the Parliament has an effective outright veto on the proposed legislation. In short, the Parliament and its elected members, and their constituents, have

* This article is based on a paper presented at the International Nuclear Law Association's Nuclear Inter Jura 95 Congress, *Nuclear Law as Source of Confidence*. Responsibility for the ideas expressed and the facts given rests solely with the author.

a far greater potential say in the European Community legislative process. Euratom legislation such as the 1992 Directive on radioactive waste movements referred to above is largely the creature of the Commission and the Council. The corresponding EC Directive on non-radioactive waste movements is much more the off-spring of the Council and the Parliament.

Second, the EC Treaty in certain circumstances permits Member States to introduce measures for the protection of the environment generally which are more stringent than those adopted for the Community as a whole in Regulations and Directives. No such rights of national environmental pre-emption appear to exist under the Euratom Treaty — nor the potential for the raising of individual state barriers and the effect on inter-state trade which such rights create.⁶

And what of the future?

It seems that the nuclear industry's comfortable relationship with Euratom may soon be perturbed. There is now a real prospect of the EC as its structures evolve beginning to draw within its regulatory orbit radioactive waste management within the European Union and seeking to regulate radioactive and non-radioactive waste management on a unified basis.

There are a number of reasons for this prognosis.

- the Inter-Governmental Conference (IGC) which will be convened in 1996 will be considering the possibility of unifying all three European Treaties (EC, ECSC and Euratom). This has been prompted in part by the impending expiry of the ECSC Treaty in 2002. The Commission in particular has recommended for reasons of simplicity and transparency that the merger should take place. Moreover there is wide support for the proposal within the Parliament many of whose members have long-standing concerns about the Parliament's limited ability to influence Euratom legislation — the current revision of the Basic Safety Standards Directive being a current case in point.
- even if the total fusion of the Treaties is not agreed at the IGC the treatment of nuclear matters may increasingly be dealt with under EC initiatives. There is reported to be strong support within sections of the Commission to abandon the EC's traditional exemption of radioactive waste from EC legislation dealing with generic waste. So far the EC has taken a hands-off approach. But there is a good argument (in certain circles elevated to the level of a theological debate) that the EC Treaty actually gives the EC much wider competence in relation to nuclear matters than it has traditionally chosen to exercise. A great deal of radioactive waste created by industrial and energy processes so the argument runs plainly falls outside the nuclear common market established by Euratom and in particular the specific nuclear goods and products listed in Annex IV of the Euratom Treaty. The Treaty simply does not deal with radioactive waste as such. Waste (arguably both radioactive and non-radioactive) is however goods and as such susceptible to regulation by the EC in particular under its free movement and competition rules. This is an argument that the EC may at some stage decide to put to the test regardless of the outcome of next year's IGC.
- the EC's present Green Paper on energy already envisages a Single European Chapter on energy which will include nuclear energy policy. This too creates the prospect of a blurring of roles of the EC and Euratom in the regulation of the nuclear sector.

What are the practical implications of these developments?

If the future regulation of radioactive waste management in Europe particularly the movement of radioactive waste shifts towards the EC and if we see a displacement of Euratom as the primary source of legislation in this area of endeavour then the nuclear industry must reflect carefully on two matters.

- the consequences of a democratically accountable assembly the Parliament (having within it strong factions with a clear environmental agenda) being able to deploy powers under EC procedures both

to amend and to veto future measures for the regulation of the way in which the industry carries on its business

- the vigorous importation into the radioactive waste management regime of EC policies on environmental protection of the sort illustrated in the Maastricht Treaty. There are few countries which today could cope with the existing requirement of the EC Framework Directive on Waste for national self-sufficiency in waste disposal and treatment were the requirement to apply to radioactive as well as non-radioactive waste.

Forces such as these within the European Community will inevitably move the nuclear industry down the path of ever-increasing control at a rate much faster than would have been the case under Euratom alone. The future appears to pose appreciable challenges for the industry.

Notes and References

- 1 92/3/EURATOM Directive
- 2 In particular Directive 91/689/EEC and Regulation (EEC) 259/93
- 3 EC Treaty Article 189(c)
- 4 EC Treaty Article 189(b)
- 5 See EC Treaty Article 130t which has no Euratom equivalent
- 6 Although in relation to quantitative exposure limits laid down under Euratom Directives Member States are not prohibited from adopting lower values. *EC Commission v Belgium*, C 376/90 [1993] 2 CMLR 513

STUDIES

Overview of Nuclear Legislation in Central and Eastern Europe

INTRODUCTION

As a rule the Nuclear Law Bulletin deals with national laws and regulations following an approach by country. However, this study aims to give an overall view of the legislative and regulatory status in Central and Eastern European countries, which is the reason for this departure from usual practice.

This study updates the note published in Nuclear Law Bulletin No. 53 and also covers several other new countries. It provides an illustration of the current legislative and regulatory framework for nuclear activities in Central and Eastern European countries (including ex-USSR countries) on the basis of information given by national representatives of the countries concerned.

The study has been prepared according to a uniform plan to provide a comparison of all the information on the nuclear activities of the countries included. Some legislative and regulatory texts have already been mentioned in the Bulletin, but for the sake of completeness they are again referred to briefly.

BELARUS

Introduction

There are no nuclear installations in Belarus at present. However, the Government is studying the possibility of setting up a nuclear power plant and work has begun on finding an acceptable site and on establishing an appropriate legal structure.

Competent nuclear authorities

General policy in the field of nuclear and radiological safety is decided by the Presidential Security Council and the Council of Ministers.

Under the Authority of the Council of Ministers, three entities are competent in the nuclear field: Academy of Sciences, Ministry for Emergencies, and Ministry of Health Care.

The Ministry for Emergencies is responsible for dealing with the consequences of the Chernobyl disaster and for ensuring the protection of the public in this regard. Two committees within the Ministry have specific responsibilities: the Committee for Supervision of Industrial and Nuclear Safety and the Committee for Hydrometeorology. *The first Committee is responsible for developing the legislative, regulatory and technical framework for the use of atomic energy. It acts as a regulatory body carrying out assessment and verification.*

of safety delivery of licences inspection of all activities involving ionizing radiation sources and nuclear power plants Inspections are carried out by personnel of the Committee's Nuclear and Radiation Safety Inspectorate

The second committee is responsible for monitoring environmental radiation and produces maps of contaminated areas

The Ministry of Health Care is responsible for the radiation protection of the public including selective radiation control of food stuffs in contaminated areas

Finally the Academy of Sciences performs research in the nuclear field and provides consulting services to the government

Legislation in force

Pending the establishment of a new legal structure, the Government has extended the validity of a large number of regulations of the former Soviet Union Some of those regulations have been revised to take into account new Russian regulations and standards and certain IAEA standards as well

Draft legislation and regulations

A Bill was drafted on radiation protection and activities related to the use of atomic energy and has been submitted to the Supreme Soviet which passed it on the first reading It should be adopted by Parliament before the end of 1995

Belarus has drawn up its legislation on the basis of that its neighbouring countries, the Bill therefore aims to deal with three main questions

- to secure the safe operation of nuclear installations and safe treatment of nuclear materials as well as to prevent nuclear accidents likely to harm the public the environment or the health of radiation workers
- provide for equitable compensation for nuclear damage,
- fulfil international commitments in the atomic energy field to this effect the Bill contains fundamental provisions based on the applicable international conventions (NPT physical protection etc)

This Bill will provide the basis of the legislative and regulatory system of Belarus and will be followed by other laws and regulations

These other drafts are being prepared and cover the following radioactive waste management nuclear third party liability financial security for nuclear hazards

International conventions

Belarus is a Party to the following Conventions

- Convention on Early Notification of a Nuclear Accident ratified on 26 January 1987
- Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency ratified on 26 January 1987

- Treaty on the Non-Proliferation of Nuclear Weapons acceded to on 22 July 1993
- Convention on the Physical Protection of Nuclear Material succeeded to on 9 September 1993

BULGARIA

Introduction

There are at present in Bulgaria six operational units at the Kozloduy nuclear power plant with a total capacity of 3 538 MWe. Four reactors are VVER-440s model V230 and two VVR-1 000.

Competent nuclear authorities

The State Committee on the Use of Atomic Energy for Peaceful Purposes (CUAEPP) set up by the Act of 7 October 1985 is the competent authority for nuclear matters. It is made up of Ministerial representatives and representatives of other administrations involved in the use of nuclear energy and is a State body under the Council of Ministers implementing national policy in that field.

CUAEPP has a) a Department on the Safety of Nuclear Facilities with two Divisions: the Division on Safety Evaluation and Analysis and the Division on the Safe Operation of Nuclear Facilities as well as an Emergency Response Centre; b) a Department on the Safety of Ionizing Radiation with four Groups: on Technogenic Sources, on Natural Radioactive Materials, on Measurements and analysis and on Registration of Movements of Ionizing Radiation Sources; c) various administrative services.

The Department on the Safety of Nuclear Facilities ensures that nuclear safety requirements are met and places its inspectors on nuclear sites (six inspectors at Kozloduy).

The Committee is assisted in its tasks by the Advisory Council on Radiation and Nuclear Safety set up to provide scientific advice at the request of the Chairman of the CUAEPP or on its own initiative. It is made up of two Departments dealing respectively with the safety of nuclear facilities and radiation protection.

On another level the National Radiobiology Centre set up by a Regulation of 18 June 1993 (Official Gazette No. 52) operates as a specialised body under the Ministry of Health and is competent for radiobiology questions, radiation protection and medical emergencies.

The Radiobiology Centre supervises the Health and Epidemiology Centre as regards regular radiation monitoring and medical controls of occupationally exposed workers. The Centre also deals with preventive measures, diagnostics and scientific and technical activities in those fields.

Legislation in force

The Act of 7 October 1985 on the Use of Atomic Energy for Peaceful Purposes (Atomic Energy Act) governs all nuclear activities in Bulgaria.

The Atomic Energy Act contains five chapters: the first determines the main principles for the peaceful uses of atomic energy; the second deals with managing the uses of atomic energy; the third establishes State

controls, the fourth concerns nuclear third party liability and finally, the fifth chapter provides for administrative provisions and penalties

The Act determines the responsibilities of the Committee on the Use of Atomic Energy for Peaceful Purposes

- to establish programmes for the long-term use of nuclear energy, the rules in connection with nuclear safety, the systems for accounting storage and transport of nuclear materials,
- to implement Bulgaria's economic scientific and technical co-operation with international organisations in the nuclear field

All nuclear activities require a licence. The licensing conditions and procedures are laid down by the Atomic Energy Act and its implementing regulations. The latter cover the following aspects:

- procedures for notifying the Committee of any modifications, occurrences or accidents during operations which have a bearing on nuclear and radiation safety (1987 Regulation)
- the safety of nuclear power plants during design, construction and operation (1987 Regulation),
- accounting storage, transport of radioactive waste (1988 Regulation)
- licensing of the uses of nuclear energy (1988 Regulation),
- the criteria and requirements for training and qualification of personnel with a view to maintaining and improving their level of knowledge and experience (1989 Regulation),
- the collection, processing, etc. and final disposal of radioactive waste (1992 Regulation)

The provisions of the Act on nuclear third party liability apply to nuclear incidents and damage occurring on the national territory.

A Regulation on the physical protection of nuclear installations and materials was adopted in August 1993. The Regulation lays down the institutional and technical provisions applicable to the physical protection of nuclear materials in use, during transport and storage. It takes into account the IAEA Recommendations on the Physical Protection of Nuclear Materials.

The 1985 Atomic Energy Act was revised recently. The Amending Act, adopted by the National Assembly on 27 July 1995, was published in Official Gazette No. 69 of 4 August 1995.

The main provisions of the Amending Act are the following:

- third party liability for nuclear damage—the Act's provisions are brought into line with those of the Vienna Convention
- funds are established for decommissioning nuclear facilities and safe storage of radioactive wastes,
- plans are made to establish special status zones around nuclear facilities and national radioactive waste storage sites,
- a clear separation is established between the functions of the national regulatory body and those of organisations using nuclear energy and

- two advisory bodies are created within the Committee on the Use of Atomic Energy for Peaceful Purposes the Council on the Safety of Nuclear Facilities and the Council on Radiation Protection

Furthermore by the Act of 27 July 1994 promulgated by Decree No 173 of 2 August 1994 Parliament authorised the accession of Bulgaria to the 1963 Vienna Convention on Third Party Liability for Nuclear Damage and to the 1988 Joint Protocol on the application of the Vienna Convention and the Paris Convention

According to the Act the liability of the operator of a nuclear installation in Bulgaria is limited to the equivalent of 15 million Special Drawing Rights (this is also specified in the Amending Act) The 1994 Act specifies that the Vienna Convention would be applicable for Bulgaria as from the date of the deposit of its instrument of accession

International conventions

- Nuclear Third Party Liability
 - Vienna Convention and Joint Protocol acceded to on 24 August 1994
- Other Conventions
 - 1968 Treaty on the Non-Proliferation of Nuclear Weapons ratified on 5 September 1969
 - 1980 Convention on the Physical Protection of Nuclear Material ratified on 10 April 1984
 - 1986 Convention on Early Notification of a Nuclear Accident ratified on 24 February 1988
 - 1986 Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency ratified on 24 February 1988
 - 1994 Convention on Nuclear Safety ratified on 8 November 1995

CROATIA

Introduction

Croatia has no nuclear power programme at present However the national electricity company (HEP) owns 50 per cent of the nuclear power plant situated at Krsko, on the Slovene territory HEP receives and distributes 50 per cent of the electricity produced by that plant but has no direct responsibility or competence regarding its operation

Competent nuclear authorities

There is no formal regulatory body in the nuclear field in Croatia at present In the former Yugoslavia responsibility for radiation protection and nuclear safety lay with the Federal Ministry of Energy and Industry Now in Croatia the Ministry of Economy is the authority competent for nuclear safety (with a special

Department on Nuclear Safety) Radiation protection falls within the competence of the Ministry of Public Health

However Croatia intends to set up a regulatory body responsible for nuclear activities The Croatian authorities also intend to

- determine the authority responsible for monitoring radioactive waste and establish regulations in that field,
- establish regulations on emergency preparedness in the context of the operation of the Krsko nuclear power plant
- assess and identify sites for setting up and operating future nuclear power plants

Legislation in force

Although, as already mentioned, Croatia has no nuclear power plant, it does have legislation on nuclear safety inherited from former Yugoslavia the Act of 21 November 1984 on Radiation Protection and the Safe Use of Nuclear Energy

This Act entered into force as a Croatian law, by Parliament decision of 8 October 1991 The Act lays down general provisions for radiation protection and other special safety measures applicable to nuclear installations and materials (Off Gaz 53/91)

Draft legislation and regulations

The Croatian authorities consider the above Act obsolete and intend to revise it

International conventions

- Nuclear Third Party Liability
 - The Republic of Croatia is a Party to the Vienna Convention (succession, 29 September 1992) and the Joint Protocol (accession 10 May 1994)
- Other Conventions
 - Convention on Early Notification of a Nuclear Accident succeeded to on 29 September 1992
 - Convention on Assistance in case of a Nuclear Accident or Radiological Emergency, succeeded to on 29 September 1992
 - Treaty on the Non-Proliferation of Nuclear Weapons succeeded to on 29 September 1992
 - Convention on the Physical Protection of Nuclear Material succeeded to on 29 September 1992

CZECH REPUBLIC

Introduction

The nuclear power plant at Dukovany has four operational units with a total installed capacity of 1 760 MWe. Two additional units each with an installed capacity of 1 000 MWe are under construction at Temelin.

Competent nuclear authorities

The State Office for Nuclear Safety (SONS) was set up by Act No. 21/1992 of 12 December 1992. Following the dissolution of Czechoslovakia, the Czech Republic has transferred responsibilities of the former Czechoslovak Atomic Energy Commission to SONS (Act No. 4/1993).

Act No. 287 of 11 November 1993 determines the competence of SONS which exercises State supervision over

- the safety of nuclear installations and the management of radioactive waste and spent fuels
- nuclear materials including record-keeping and inspections
- physical protection of nuclear materials and installations
- emergency preparedness

SONS is also responsible for co-ordinating co-operation with the IAEA.

On 19 April 1995 the Czech Parliament extended the responsibilities of SONS (Act No. 85/1995). Henceforth, in addition to nuclear safety, the State Office also covers radiation protection, which was previously the responsibility of the Ministry of Health.

The State Office for Nuclear Safety is made up of three technical departments: a Department of Components and Systems, a Department of Nuclear Safety Assessment, and a Department of Nuclear Materials. Most of the personnel of SONS are nuclear safety inspectors.

The Ministry of Industry and Trade is responsible for

- developing domestic legislation in the nuclear field and preparing intergovernmental treaties in this area
- proposing strategic reserves of nuclear materials
- co-operating with other government agencies in developing emergency preparedness plans and environmental protection principles
- co-ordinating activities in the nuclear field from the viewpoint of the Government's economic policy
- developing the principles of government policy in the nuclear area including the management of radioactive waste and spent nuclear fuel

- monitoring the Dukovany NPP operation and Temelin NPP construction

Legislation in force

Act No 28/1984 (Act of 22 March 1984) on State supervision of the safety of nuclear installations of the former Czech and Slovak Republic remains applicable in the Czech Republic pending the adoption of a new Act

Under Act No 28 applications to construct and operate a nuclear installation must be submitted to the State Office for Nuclear Safety. The organisation concerned submits its application to SONS which, after consideration of the documentation provided, in particular that on nuclear safety, grants its consent and establishes the licensing conditions. The decision of SONS must be issued not later than two months after the organisation has submitted the relevant documentation.

Inspections of nuclear installations are carried out by SONS to ensure observance of the technical specifications for nuclear safety of the operational instructions and conditions and radiation protection measures.

The construction of nuclear installations is also governed by the Construction Code (Act No 50/1976) and each nuclear installation must be submitted to the procedure set out in the Environmental Impact Assessment Code (Act No 244/1992).

Although there is as yet no specific legislation on nuclear third party liability, this matter is regulated for the time being in the framework of the Civil Code (Part VI, Chapter II of Act No 40/1964) and the Commercial Code (Act No 513/1991). The Civil Code covers liability for damage to human health including death, or to property including loss of property. The operator is liable for damage due to the character of a particularly dangerous operation: this includes the operation of a nuclear power plant and transport of nuclear substances. He is so liable regardless of fault if the damage was due to the hazardous nature of the operation. In other cases he will be relieved of his liability if he can prove that the damage could not be prevented in spite of all possible care.

There are still no provisions in the Civil Code limiting the operator's liability or obliging him to hold insurance or other security to cover his liability nor does it contain provisions for State intervention to compensate damage.

Under the Czech Government Resolution No 534 of 24 September 1993, the Minister for Industry and Trade is empowered to sign on behalf of the Government a temporary State guarantee for nuclear operators, which guarantees their coverage for compensation of potential victims of nuclear incidents up to the overall sum of CZK 6 billion (approximately 150 million Special Drawing Rights). This guarantee is covered by the Act on the State budget and remains valid until the new Nuclear Act enters into force.

Draft legislation and regulations

A Bill on the use of nuclear energy and ionizing radiation is being finalised. The Bill, dated 21 April 1995 was approved by the Government on 28 June 1995 and will be submitted to Parliament in November 1995. It should be adopted by June 1996.

This general law is drafted in the form of principles and establishes the conditions for the use of nuclear energy and ionizing radiation and for protection of the public and the environment against the harmful effects of ionizing radiation. It includes provisions (Section VII) on nuclear third party liability supplementary to the provisions of the Vienna Convention and establishes a new governmental body which will implement the State guarantee for safe disposal of radioactive waste and spent nuclear fuel.

International conventions

- **Nuclear Third Party Liability**
 - Vienna Convention and Joint Protocol acceded to on 24 March 1994
- **Other Conventions**
 - Treaty on the Non-Proliferation of Nuclear Weapons succeeded to on 1 January 1993
 - Convention on Early Notification of a Nuclear Accident succeeded to 24 March 1993
 - Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency succeeded to on 24 March 1993
 - Convention on the Physical Protection of Nuclear Material succeeded to on 24 March 1993
 - Convention on Nuclear Safety approved on 18 September 1995

ESTONIA

Introduction

There are no nuclear power plants in Estonia. However, there are two reactors and repositories of nuclear waste at Paldiski (the former Soviet Naval training centre) which remained under Russia's ownership and control until 27 September 1995. From this date, the ownership of and the responsibility for the centre transferred to Estonia.

Competent nuclear authorities

The Government has provided for the separate allocation of tasks between the different Ministries and reserved its competence in defence matters. It lays down the conditions and rules for the licences required for activities connected with ionizing radiation (safety, radiation levels, etc).

The Ministry of the Environment and the Ministry of Social Affairs are the two bodies competent for nuclear and radiological questions.

The Radiation Centre for its part controls the proper implementation of the documents issued by the Government and supervises all radiological activities (issue of licences, etc.)

Legislation in force

There is at present no specific text regulating nuclear safety or radiation protection. However, certain provisions deal with those questions indirectly.

- Article 123 of the Constitution of Estonia provides that the international treaties ratified by Parliament (*State Assembly - Riigikogu*) supersede domestic legislation or other texts which conflict with such treaties.
- Article 53 of the Constitution provides for the obligation to protect mankind and the natural environment and for the possibility of being compensated in case of damage,
- Sections 26, 41 and 42 of the Act on the General Principles of the Civil Code entitle all persons to claim compensation for moral or material injury resulting from violation of their rights—the person responsible therefor is exclusively liable for such compensation,
- Sections 48 and 52 of The Act on the Protection of Nature deal with the same rights and obligations in the framework of environmental damage.

Lastly, the Act on Export and Transit of Strategic Goods which entered into force on 28 April 1994 makes licences for the export or transit of such so-called goods mandatory. Nuclear technology related materials and facilities, nuclear waste as well as uranium ores are included in that category. Licences are issued by an Interdepartmental Commission set up for this purpose.

Draft legislation and regulations

A Bill to regulate the use of radiation and other matters involving radiation protection is being studied. This draft defines the organisation of activities and different controls as well as the related tasks. The Bill deals solely with radiation protection and nuclear activities will be covered by a specific law.

This Bill specifies the rules applicable to the use of ionizing radiation, the possession of radiation sources, the transport of radioactive materials, radioactive waste disposal and other activities involving a hazard to health or the environment.

International conventions

- Nuclear Third Party Liability
 - Estonia acceded to the Vienna Convention and the Joint Protocol on 9 May 1994.
- Other Conventions
 - Treaty on the Non-Proliferation of Nuclear Weapons, acceded to on 7 January 1992.
 - Convention on the Physical Protection of Nuclear Material, acceded to on 9 May 1994.
 - Convention on Early Notification of a Nuclear Accident, acceded to on 9 May 1994.
 - Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency, acceded to on 9 May 1994.

HUNGARY

Introduction

There is at present one nuclear power plant in Hungary located at Paks on the Danube. The plant has four units with a capacity of 1 729 MWe.

Competent Nuclear Authorities

In Hungary, responsibility for nuclear activities is shared between the Hungarian Atomic Energy Commission and several Ministries: the Ministry of the Interior (for physical protection and emergency preparedness), the Ministry of Social Welfare and Health (for radiation protection) and the Ministry of Environmental Protection.

The Atomic Energy Commission advises the Government on nuclear matters and is also the nuclear safety regulatory body. The Commission

- promotes research and development in the field of nuclear safety
- co-ordinates the regulatory tasks divided between the different Ministries
- sets up and governs the operation of the national nuclear material accountancy and control system
- performs the tasks arising from Hungary's international obligations in connection with nuclear exports and imports of nuclear materials
- co-ordinates Hungarian participation in the activities of the IAEA and maintains relations with other international bodies involved in nuclear activities
- establishes and maintains bilateral and multilateral relations in fields within its competence

Legislation in force

The legal regime applicable to nuclear activities in Hungary is set down in Act No. 1 of 1980, the Atomic Energy Act. The different Ministries are responsible for implementing the Act in their respective fields of competence by means of decrees.

A new general act on atomic energy is being prepared. Pending its adoption, the 1980 Act specifies that

- nuclear energy must be used for exclusively peaceful purposes
- nuclear energy must be used in such a way as to avoid harming human life, health, present and future living conditions, the environment and property
- safety requirements in connection with the use of nuclear energy must be brought up to date on a continuous basis, in line with technical and scientific developments
- nuclear power plant constructors must apply safety and quality assurance rules

Ordinance No 12 of 5 April 1980 of the Council of Ministers, made under the 1980 Act, regulates nuclear activities in detail

Ordinance No 7 of 20 July 1988 of the Minister of Health also made under the above Act lays down the radiation protection rules applicable to all activities involving the use of nuclear energy, it is supplemented by a series of annexes on maximum permissible radiation doses and health provisions applicable to the setting up and operation of nuclear installations

An Ordinance of 1979 (No 5) of the Minister of Industry regulates nuclear safety matters. The provisions of the 1979 Ordinance on licensing and administrative procedures have been amended by an Ordinance of 1993 (No 77)

Ordinance No 8 of 31 October 1988 of the Minister of Transport specifies the conditions applicable to all modes of transport of radioactive substances referred to in Ordinance No 7 of 1988 and lays down measures in case of an incident occurring during transport of such substances

As regards nuclear third party liability, on an international level Hungary has been a Party to the Vienna Convention and the Joint Protocol since 1989 however, the Atomic Energy Act which contains nuclear third party liability provisions was adopted in 1980 and is therefore not completely in line with the Vienna Convention. The main features of the national nuclear third party liability regime are the following

- the Act provides for the operator's absolute liability he is liable for damage caused by any event involving radiation or radioactive contamination during operation of a nuclear installation or transport of nuclear materials,
- in the Hungarian legal system, there is no limit to the amount of compensation for nuclear damage the State guarantees such compensation and its means and extent are governed by the provisions of the Civil Code on compensation,
- the Act applies to damage suffered in other countries only if such countries are a Party to an international convention to which Hungary is a Party or if there is a reciprocity agreement between Hungary and the country concerned
- the statutory limitation applicable to personal injury or property damage is ten years from the date of the nuclear incident causing the damage,
- the Act makes no special provision as to the competent court for bring claims for compensation the Code of Civil Procedure applies

Draft legislation and regulations

As already mentioned new legislation with a general scope in the field of the peaceful uses of atomic energy is being prepared and should be adopted in 1996

This draft takes account of the provisions of the Vienna Convention and the Joint Protocol. The amount of liability for nuclear damage is set at 100 million Special Drawing Rights (SDRs) in case of an incident in a nuclear power plant and at 5 million SDRs in case of an incident during transport. This compensation may be supplemented by a contribution from the Hungarian State amounting to 250 million SDRs

International Conventions

- Nuclear Third Party Liability
 - Hungary was the first Eastern European State to accede to the Vienna Convention (28 July 1989) and the Joint Protocol on the Application of the Vienna Convention and the Paris Convention (26 March 1990)
- Other Conventions
 - Treaty on the Non-Proliferation of Nuclear Weapons ratified on 27 May 1969
 - Convention on the Physical Protection of Nuclear Material ratified on 4 May 1984
 - Convention on Early Notification of a Nuclear Accident ratified on 10 March 1987
 - Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency ratified on 10 March 1987

KAZAKSTAN

Introduction

Kazakhstan's uranium extraction and uranium ore production industry consists of uranium geological research agencies, several uranium mines, two facilities for the production of uranium oxide located in Aktau and Stepnogorsk, and one facility for the production of fuel pellets.

The fast breeder reactor at Aktau is also used as a water desalination plant and for production of electricity.

In addition, Kazakhstan operates three research reactors for nuclear safety tests on the site of the previous nuclear research centre at Semipalatinsk, and one other near Almaty.

One of this country's main concerns is decontaminating and restoring the sites polluted by military and civilian nuclear activities.

Competent nuclear authorities

The Kazakhstan Atomic Energy Agency (KAEA) was set up by Presidential Decree of 1992. This Agency is the Government's directing body responsible for implementing national policy in the nuclear field.

The Agency, which has legal personality, may regulate all activities in the nuclear field. It is also responsible for delivering licences to operate nuclear installations.

The Agency adopts mandatory decisions to be implemented by the authorities and undertakings involved in the nuclear field

The Government has empowered the Agency to

- inspect nuclear installations and penalise any violations of the conditions laid down by the operating licence
- undertake checks on nuclear safety in installations and ensure the safe management of nuclear materials and radioactive waste (including their collection reprocessing, transport and storage)
- determine the conditions for implementing quality assurance programmes and ensure that they are applied during the construction and operation of installations
- supervise the adoption of preventive measures for nuclear accidents
- apply the State policy regarding the use of nuclear energy while taking into account international rules
- control exports and imports of nuclear materials and technology
- undertake the accounting of nuclear materials and supervise their storage transport and use
- represent Kazakstan in the International Atomic Energy Agency and carry out work on the safe use of nuclear energy at international level
- encourage collaboration on scientific, economic and technical know-how between the States interested in nuclear technology

Legislation in force

The Atomic Energy Agency has prepared two regulations which provide guidance on the use of nuclear energy

The first Regulations adopted in 1994 by decision of the Agency's Director General establish the conditions for the physical protection of nuclear materials on site during transport and transit and specifies the organisation of the physical protection system the responsibilities of the different public bodies and those of the operators

All Government agencies with responsibilities regarding nuclear installations must submit plans for implementing physical protection measures in accordance with the provisions of the Regulations Also operators must submit their internal physical protection plans for approval by the Agency

As regards the latter Guidelines also published by decision of the Agency's Director General in 1994 are intended for operators of nuclear installations to help them to establish their own physical protection rules They provide explanations on the contents of the Regulations and on the conditions laid down

The second set of Regulations, on the use of atomic energy radioactive waste management and spent nuclear fuels was adopted by the Government on 11 April 1994 (Resolution No 364)

These Regulations specify the tasks of the competent public authorities in the nuclear field as well as the conditions for licensing radiation protection accounting and control of nuclear materials

Draft legislation and regulations

Two pieces of legislation are currently being prepared

- a Bill on the use of nuclear energy aims to provide for a framework Act in this respect. It defines the terms used in the nuclear regulatory procedure. The main purpose of the Act is to establish a legislative structure for the use of nuclear energy and to protect public health and the environment. The provisions of the Bill aim to reflect the basic regulatory trends at international level.
- a Bill on radiation protection reflects the main aspects of national policy regarding radiation safety. It deals with the rights of individuals in the context of such safety, the duties of users of ionizing radiation sources and the responsibilities of State bodies.

International conventions

Treaty on the Non-Proliferation of Nuclear Weapons, acceded to on 14 February 1994

LATVIA

Introduction

There are no nuclear power plants in operation or under construction in Latvia. Also, there are no plants for manufacturing or reprocessing nuclear fuel and no plans to build any nuclear facilities in the near future. However, Latvia operates an IRT-type research reactor at Salaspils in the Riga region. The reactor was commissioned in 1961 and it is planned to shut it down and decommission it in 1996.

Competent nuclear authorities

The Ministry of Environmental Protection and Regional Development and the Ministry of Welfare are the two regulatory bodies competent in the nuclear field.

The Ministry of Environmental Protection and Regional Development is responsible for the regulation and control of all uses of ionizing radiation sources (barring medical applications) and for co-ordinating activities in the context of international co-operation.

The duties of the Radiation and Nuclear Safety Inspectorate under that Ministry include

- licensing of activities involving radiation and supervision of nuclear safety
- supervision of the transport of nuclear and radioactive materials
- organisation of the State system of accounting and control of nuclear materials

- organisation and updating of the State data base for radioactive materials and ionizing radiation sources

The Environmental Data Centre, also under the Ministry of Environmental Protection, is responsible for the early warning system and provides a laboratory service for radionuclides samples

The Ministry of Welfare is responsible for radiation protection in the medical field (diagnostics radiation applications, accelerators etc) The Public Health Centre and the Radiology Centre are placed under the authority of the Ministry of Welfare

The Radiology Centre is responsible *inter alia*, for the licensing and supervision of X-ray applications in medicine and for dosimetry in general

Legislation in force

The Act on Radiation and Nuclear Safety was adopted by the Latvian Parliament on 1 December 1994 (the text of the Act is reproduced in the Supplement to Nuclear Law Bulletin No 55) The Act governs all activities involving radioactive or nuclear materials and all sources of ionizing radiation

It establishes the basic principles of radiation and nuclear safety (justification optimization and limitation) and also contains provisions on nuclear third party liability

The Act lays down a licensing system divided into two parts licences for all commercial operations and permits for all non-commercial operations

Operators (the managers of radiation works) must inform the Radiation and Nuclear Safety Inspectorate that all the basic safety principles will be met following which inspectors can deliver licences or permits, as the case may be The Inspectorate may withdraw or amend licences or permits at any time if radiation or nuclear safety requirements are not met

As regards nuclear third party liability, Latvia became a Party to the 1963 Vienna Convention on Civil Liability for Nuclear Damage and the Joint Protocol on the application of the Vienna Convention and the Paris Convention Accordingly, the liability provisions of the Act conform to the Vienna Convention regime

- the maximum amount of liability for nuclear damage is set at the minimum amount provided by the Vienna Convention (5 million US\$ 1963 value),
- the operator is exclusively liable for nuclear damage originating in his installation (absolute liability)
- the major portion of liability will be borne by the State, while the Nuclear Research Centre (operator of the Salaspils research reactor) will jointly cover the remainder through an insurance system

Draft legislation and regulations

Draft regulations have been prepared on the basis of the safety standards of the International Atomic Energy Agency (IAEA), the European Union (EU) and other international recommendations

The first set of regulations concern the granting of licences and operating permits They set the requirements for applicants the liability limits for different types of facilities (X-ray equipment research laboratories etc)

Radiation protection will be governed by basic regulations on protection against ionizing radiation and will also include provisions on early notification requirements for food etc

Furthermore draft regulations on radioactive waste management are due to be completed in 1996

International conventions

- Nuclear Third Party Liability
 - Latvia acceded to the Vienna Convention and the Joint Protocol on 24 August 1994
- Other International Conventions
 - Treaty on the Non-Proliferation of Nuclear Weapons acceded to on 31 January 1992
 - Convention on Early Notification of a Nuclear Accident acceded to on 28 December 1992
 - Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency acceded to on 28 December 1992

LITHUANIA

Introduction

There are two RBMK reactors in operation at the Ignalina nuclear power plant (2 760 MWe). The Ignalina power plant provides approximately 80 per cent of the electricity used in Lithuania. A third reactor was under construction but the Government has decided not to complete it.

Competent nuclear authorities

Several Ministries regulate the use of nuclear energy: the Ministry of Energy, the Ministry of Health, and the Ministry of Environmental Protection.

After the dissolution of the Soviet bloc, Lithuania set up its own Nuclear Power Safety Inspectorate (VATESI) by Government decision of 1 November 1991.

The duties of VATESI include

- development of its own rules and standards based on study of foreign nuclear legislation, and
- establishment of all the rules and standards to be applied to the use of nuclear energy, the transport of radioactive and nuclear materials and their storage.

To assist VATESI in its work in May 1993 the Government set up the Nuclear and Radiation Safety Committee by Decree. The Committee is made up of environment and nuclear safety experts from various countries (United Kingdom, Germany, Sweden, Finland, Ukraine, Russia and Lithuania).

The Committee advises the Government in solving problems arising from the use of nuclear energy in particular, by developing international co-operation in that field. It co-operates with the Ignalina power plant management, VATESI and the Minister of Energy and provides advice on upgrading nuclear safety and on development of strong regulatory infrastructures. It may also advise the Government on the price of electricity or on other specific questions.

The Committee receives no funding from the Government; its expenditure is covered by its members and by the Lithuanian Energy Institute.

Legislation in force

There is no single specific law dealing with the uses of nuclear energy. The legal framework for such activities is made up of several general laws which contain provisions concerning the nuclear field, in addition to many Government decisions (the Statute of VATESI, the setting up of the Nuclear Safety and Radiation Committee, etc.).

The general laws are, e.g., the Energy Act, the State Enterprise Act, the Act on specific State Enterprises, the Act ratifying the Vienna Convention and the Joint Protocol.

Act No. I-134 enforcing the application in Lithuania of the 1963 Vienna Convention and the 1988 Joint Protocol was promulgated on 30 November 1993 by the President of the Republic of Lithuania.

The Act provides that the provisions of the Vienna Convention and the Joint Protocol are directly applicable in Lithuania. It also provides that the nuclear operator's liability will be defined in Lithuanian litas equivalent to the minimum liability amount set by the Vienna Convention (5 million US\$ 1963 value).

Draft legislation and regulations

Several pieces of legislation are being prepared on the following topics:

- radiation protection
- radioactive waste management
- physical protection of nuclear installations and nuclear and radioactive materials
- nuclear third party liability

Furthermore, preparation of a general Bill on nuclear energy is well under way. This Bill sets the rules applicable to the use of nuclear energy, provides a legal framework for nuclear activities and guarantees the peaceful use of nuclear materials and technology.

International conventions

- Nuclear Third Party Liability
 - Lithuania acceded to the Vienna Convention on 15 September 1992 and to the Joint Protocol on 20 September 1993
- Other Conventions
 - Treaty on the Non-Proliferation of Nuclear Weapons acceded to on 23 September 1991
 - Convention on the Physical Protection of Nuclear Material acceded to on 7 December 1993
 - Convention on Early Notification of a Nuclear Accident, acceded to on 16 November 1994

POLAND

Introduction

There are no nuclear power plants in Poland at present. There are however several research reactors including the Ewa reactor which is currently being decommissioned.

Competent nuclear authorities

The National Atomic Energy Agency (NAEA) is the main supervisory body in the nuclear field. The Agency was set up by the Atomic Energy Act of 10 April 1986 and is a Government body directly under the authority of the Prime Minister who appoints the President of the Agency.

The NAEA, assisted in its work by the Atomic Energy Council, has extensive responsibilities and is competent for

- regulating nuclear safety and radiation protection
- licensing in connection with siting, construction, commissioning, operation and decommissioning of nuclear installations following an assessment of all safety-related risks
- co-ordinating and supervising the design, construction, etc. of nuclear installations in accordance with safety requirements and regulatory verifications
- research on nuclear energy and its applications
- supervising the manufacture of nuclear equipment and radiation sources
- radioactive waste storage

- registration control and physical protection of nuclear materials
- informing the public on nuclear activities
- co-operating with other countries on the peaceful uses of nuclear energy

In carrying out its tasks, the Agency may

- co-operate with other Government bodies with specific competence in fields such as technical safety control of public health or environmental protection,
- in the interests of safety, obtain relevant information from governmental or non-governmental organisations
- initiate contacts with international organisations

The Atomic Energy Council, alongside the NAEA is an advisory body concerned with matters falling within the scope of the Agency's activities. Its statute was determined by a Decree of the Prime Minister of 8 February 1993.

The Council consists of a Chairman, no more than three Vice-Chairmen, a scientific secretary and no more than forty members. Their term of office is four years. The Prime Minister, on proposal of the President of the Agency, appoints and recalls the Chairman of the Council.

Scientists and practitioners, atomic energy specialists and representatives of public administrations and social organisations may take part in the Council's work.

In particular, the Council initiates and supports all activities with a view to developing scientific activities connected with atomic energy, improving radiation protection and nuclear safety, providing information on matters related to the application of nuclear and radiation techniques.

The Council issues resolutions, opinions and experts' reports. Its expenses are covered by the Agency's budget.

Legislation in force

The Act of 10 April 1986 is an outline Act governing all nuclear activities in Poland and determines the responsibilities and tasks of the authorities and bodies engaged in such activities. Adoption of the Act was related to the programme at the time which included plans for the construction of a nuclear installation at Zarnowiec; those plans were postponed in 1989.

The Act provides that the primary consideration in the use of nuclear energy should be the protection of health, life, property and the environment. It establishes a licensing system for the following:

- nuclear installations (from site selection to decommissioning)
- production, use, conversion, storage, transport of and trade in nuclear materials, radioactive sources and waste,
- construction and operation of radioactive waste repositories,
- manufacture and use of radiation-emitting devices, etc.

These licences are issued by the President of the Agency who may at any time withdraw or amend a licence if nuclear safety or radiation protection requirements are not met. Operators must keep records of licensed materials and radioactive sources as well as waste and take measures to ensure their physical protection.

Establishments using nuclear materials must prepare training programmes for their personnel; these programmes must be approved by the President of the Agency.

Control over the safety of nuclear installations is exercised by the President of the Agency and by inspectors appointed by him. They are in charge of nuclear surveillance in all establishments using nuclear materials and equipment.

The Act also contains provisions on nuclear third party liability and compensation. The operator of a nuclear installation is liable for all nuclear damage resulting from the operation of the installation (absolute and exclusive liability). As regards damage occurring during transport of nuclear materials, the consignor/operator is liable therefor until they reach their destination.

The 1986 Atomic Energy Act was amended on 24 June 1994 (DZ U No 90 poz 418). These amendments provide for the possibility of obtaining assistance from the State budget for any expenditure required in the interests of the safe use of nuclear energy. On 6 December 1994 the President of the Agency issued an Ordinance specifying the type of activity connected with the safe use of nuclear energy which can benefit from such financial assistance (DZ U No 131 poz 661).

The Atomic Energy Act is supplemented by several orders, ordinances and decrees.

The Order of 31 March 1988 lays down dose limits for ionizing radiation as well as derived limits defining hazards from such radiation. It defines dose limits for occupationally exposed persons, for persons in the vicinity of nuclear power plants and for persons exposed to radiation through everyday use of radiation-emitting products.

The 1988 Order was amended on 7 July 1995 by the President of the Agency to provide for radon dose limits in residences and workplaces; also no person under sixteen may work in an environment where radiation is present (Mon Pol No 35 poz 419).

A Regulation of 6 June 1988 made under the 1986 Act lays down the principles for the physical protection of nuclear materials; it provides for measures to protect nuclear materials against theft, sabotage or illegal uses according to the category of nuclear material as classified in the Convention on the Physical Protection of Nuclear Material to which Poland is a Party.

The Ordinance of 2 September 1994 concerns the storage of radioactive waste and a national repository for such waste (Mon Pol No 49 poz 407).

Furthermore, the Act of 2 December 1993 on special controls over trade in certain articles and technology with third countries provides for controls regarding the import, export and transit of such articles and technology in accordance with international agreements concluded by Poland and the resulting commitments.

Draft legislation and regulations

A Bill to revise the Atomic Energy Act of 1986 is being prepared. The final version is expected by the end of 1995.

The Government is also preparing an Order on licensing conditions for nuclear activities.

International conventions

- Nuclear Third Party Liability
 - Vienna Convention and Joint Protocol acceded to on 23 January 1990
- Other International Conventions
 - Treaty on the Non-Proliferation of Nuclear Weapons, ratified on 12 June 1969,
 - Convention on the Physical Protection of Nuclear Material, ratified on 5 October 1983
 - Convention on Early Notification of a Nuclear Accident, ratified on 24 March 1988,
 - Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency ratified on 24 March 1988
 - Convention on Nuclear Safety ratified on 14 June 1995

ROMANIA

Introduction

There are no nuclear power plants in operation in Romania at present. However, five CANDU-type nuclear units with a 600 MWe capacity are under construction at Cernavoda on the Danube.

Competent nuclear authorities

The National Commission for the Control of Nuclear Activities is the body responsible for the licensing and control of the uses and development of nuclear energy. The Commission is headed by a Chairman who holds the rank of Under-Secretary of State; he reports to the Minister of Waterways, Forestry and Environmental Protection.

The Commission was set up by Decree No. 29 of 8 January 1990 and its competence was established by Decree No. 221 of 11 May 1990. The Commission is fully responsible for all issues relevant to nuclear safety in the siting, construction and operation of nuclear installations in Romania, as well as for quality assurance, radiation safety, safeguards, export controls, physical protection and emergency preparedness.

In the discharge of its duties, the Commission

- issues regulations, technical documents, standards and instructions for the safe operation of nuclear installations and power plants
- reviews and assesses safety information submitted by applicants

- issues amends or revokes licences and
- generally controls all nuclear activities

The Commission is also responsible for developing international co-operation in its field of competence with bodies engaged in similar activities in other countries and with international organisations

The Commission has two main Divisions the Nuclear Regulatory Division and the State Inspectorate for Nuclear Protection Both report directly to the Chairman of the Commission

Each Division is made up of three sections The Nuclear Regulatory Division includes

- the Reactor Safety Evaluation and Analyses Section
- the Radiation Safety Section,
- the Radioactive Materials Waste and Transport Section

The State Inspectorate for Nuclear Protection includes

- the Reactor Safety Compliance and Quality Assurance Section
- the Radiation Safety Compliance Section
- the Safeguards Physical Protection Emergency Response and Export Controls Section

Different Ministries also play their part in controlling nuclear activities in particular

- the Ministry of the Interior sets the rules concerning fires and physical protection
- the Ministry of Health is the competent authority concerning the use of radioactive products for diagnosis and medical treatment
- the Ministry of Waterways Forestry and Environmental Protection is responsible for controlling radioactivity in the environment (air water soil vegetation) and
- the Ministry of National Defence is responsible for civil defence

The Institute of Atomic Physics which replaced the former State Committee for Nuclear Energy is responsible for scientific research development and applications of nuclear technologies as well as for promotion of nuclear-related applications in Romania's economy An important part of nuclear power plant research and design is performed by the Pitești Institute for Nuclear Research and the Institute for Power Studies and Design Nuclear Department at the National Administration for Electricity - RENEL

The Ministry of Research and Technology is the supervisory authority of the Institute

A National Export Control Agency was set up by Government Decision of 23 September 1992 (Decision No 594/1992) on the regime for import and export of sensitive articles and technology The Agency is responsible for supervising implementation of the Decision under the authority of the Government Its duties include in particular

- examining certificates for the import of nuclear products and advising on them

- checking all questions dealing with import and export operations regarding articles and technologies subject to control
- participating in international co-operation in this field

The Government has also set up a National Atomic Energy Agency within the Ministry of Research and Technology. The Agency is responsible for co-ordinating nuclear research at national level, controlling technology transfers and providing assistance in the development of the national nuclear park.

Legislation in force

In Romania nuclear activities are governed by Act No. 61/1974 on the development of such activities, together with Act No. 6/1982 on quality assurance of all nuclear installations. The Commission has issued nuclear safety regulations which take into account the IAEA's safety codes and guides.

In accordance with Act No. 61/1974 a licence to be delivered by the Commission exclusively for legal persons is required for the following activities:

- scientific research, development and application of nuclear technology,
- design, construction and operation of nuclear installations
- prospecting for and mining development, production, utilisation, transport and storage of radioactive substances or nuclear-related materials including radioactive waste,
- supply sale possession, transfer, import and export of radioactive substances and nuclear-related materials

The use of radionuclides and radiation sources for medical purposes as well as irradiated products for public consumption require the opinion of the Ministry of Health before the Commission delivers a licence.

Licensees must ensure that their work is carried out in accordance with the regulations and standards in force. They must apply the measures required for nuclear safety: protection of the personnel, the population and the environment.

Medical checks of occupationally exposed personnel are carried out continuously in accordance with measures laid down by the Ministry of Health.

Licensees must also keep a detailed account of the radioactive and nuclear materials they are responsible for and ensure that they will not be released accidentally, lost or stolen. In case of accidental release, they must inform the competent authorities which in turn inform the neighbouring countries accordingly; they must limit and mitigate the consequences of any such release.

In addition, the Minister of Waterways, Forestry and Environmental Protection has enacted Order No. 2/1993 providing for emergency preparedness on case of a nuclear accident or radiological emergency.

Imports and exports of nuclear materials are regulated by the above-mentioned Government Decision No. 594/1992 and by Orders.

Order No. 40/1991 jointly issued by the Ministers of Foreign Affairs, National Defence, Industry, Trade and Tourism provides for a system of control over the export of materials, chemical and biological substances.

Order No 2/1993 was made by the Minister of Trade in implementation of Government Decision No 594/1992 and lays down the licensing system for the import and export of radioactive materials and nuclear equipment other than the equipment and products that can be used directly for the manufacture of nuclear explosive devices. Also Act No 88/1992 has introduced a provision in the Penal Code to sanction any breach of the regulations on imports of wastes and residues.

Act No 61/1974 also lays down the regime governing liability for nuclear damage in Romania. At international level it has been a Party to the Vienna Convention and the Joint Protocol since 1992. The 1991 Constitution provides that international treaties to which Romania is a Party are part of Romanian national law.

The Act does not define the territorial scope of the third party liability provisions. A licensee is exclusively liable irrespective of fault for damage caused by a nuclear incident in his installation or during transport of radioactive materials ordered by him. Under the Civil Code, the liability of a person in charge of a thing is absolute. If several licensees are liable for nuclear damage liability is apportioned between them according to the extent of the damage each has caused. If this is impossible liability is borne in equal parts. A licensee is not liable for damage caused by a nuclear incident due to an armed conflict or a natural catastrophe.

Liability covers loss of life, personal injury and destruction of or damage to property.

The liability of a licensee is limited to 80 million lei per nuclear incident (approximately 3 million Special Drawing Rights). He must take out insurance or other security to cover his liability. There are no provisions specifying that the State has an obligation to provide additional compensation in case the nuclear damage exceeds the licensee's maximum amount of liability.

The right to compensation for nuclear damage expires ten years from the date on which the victim had or could have had knowledge of the damage and the licensee liable.

Finally, as regards the competent court, the Code of Civil Procedure provides that jurisdiction lies both with the court of domicile of the defendant and with the court of the place where the incident occurs. The plaintiff may decide where the action will be brought.

Draft legislation and regulations

A Bill on the safety of nuclear activities was submitted to Parliament in March 1994. Its purpose is to bring up to date the Acts of 1974 and 1982, taking into account:

- the changes in Romania's political and economic environment, including the achievement of a market economy based on a free market, democracy and a separation of powers
- the regulatory experience acquired in Romania since the two above Acts
- new legal developments perceived in other countries
- recommendations by IAEA experts

The new Act will apply to the design, construction, operation and decommissioning of nuclear installations, to ore extraction and processing of uranium and thorium ores, and to production, supply and storage of nuclear fuels, radioactive materials and waste. These activities will require a licence from the National Commission for the Control of Nuclear Activities covering nuclear safety, radiation protection, quality assurance, non-proliferation and physical protection.

International conventions

- Nuclear Third Party Liability
 - Vienna Convention and Joint Protocol acceded to on 29 December 1992
- Other Conventions
 - Treaty on the Non-Proliferation of Nuclear Weapons ratified on 4 February 1970
 - Convention on Early Notification of a Nuclear Accident acceded to on 12 June 1990,
 - Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency acceded to on 12 June 1990,
 - Convention on the Physical Protection of Nuclear Material, ratified on 23 December 1993
 - Convention on Nuclear Safety ratified on 1 June 1995

RUSSIAN FEDERATION

Introduction

With an installed capacity higher than 20 000 MWe, the Russian Federation produces more nuclear power than the other two former Soviet Republics which also have nuclear power plants in operation There are 29 nuclear power plants in operation and 18 units under construction in Russia at present

Competent nuclear authorities

In the Russian Federation, responsibilities in the nuclear field are divided between the Ministry of the Russian Federation for Atomic Energy (Minatom) and the State Committee for Nuclear and Radiation Safety (Gosatomnadzor) Minatom is responsible for the national nuclear power programme and for research and development in that field The Gosatomnadzor is the regulatory body for nuclear and radiation safety and its Head reports directly to the President of the Russian Federation

The Gosatomnadzor s mandate and competence were determined by Decree No 249 and Order No 137-rp issued by the President on 3 and 31 December 1991 respectively

The Gosatomnadzor is responsible for organising and implementing the regulation and control of nuclear activities for peaceful purposes It defines safety principles and criteria standards and rules as well as other regulatory measures in particular by establishing a licensing and inspection system for such activities

In particular the Gosatomnadzor must

- ensure that ministries government departments enterprises and citizens observe the principles laid down by law for the safe production and use of nuclear energy nuclear materials and radioactive substances as well as the requirements of the nuclear and radiation safety rules and standards
- supervise the application of safeguards for non-proliferation purposes to nuclear installations and materials as well as their physical protection also in implementation of international agreements in those fields
- participate with interested organisations in the development of principles and criteria standards and rules in the field of nuclear and radiation safety for nuclear installations

The headquarters of the Gosatomnadzor are in Moscow and it has seven subsidiaries scattered on the Russian territories most of the nuclear installations have an inspector permanently on site

The Rosenergoatom a state body is responsible for the management of nuclear power plants with the exception of the Leningrad nuclear power plant It reports to Minatom but is in principle autonomous Rosenergoatom is to be the licensee for nuclear power plants and will also be the operator liable in connection with the nuclear third party liability regime

Legislation in force

In the Russian Federation there is no general Act specifically governing nuclear activities However a Bill on the Utilisation of Atomic Energy has been submitted to Parliament as well as a Bill on State Policy for Radioactive Waste Management There are nevertheless several texts which deal with nuclear power plants radioactive substances and imports and exports

An Ordinance of 28 December 1992 deals with the construction of nuclear power plants and in 1993 pending the adoption of the Act on the Utilisation of Atomic Energy a Regulation was issued concerning nuclear power plant operators Also in 1993 another Regulation was issued concerning temporary permits for such operators An Order of 25 May 1993 lays down regulations for granting temporary permits by the Gosatomnadzor for the production trade in and use of radioactive substances and products containing them

Several instruments have been adopted concerning the export of nuclear materials equipment and technology an Edict of the President of the Russian Federation dated 27 March 1992 provides for the control of such exports It specifies that such materials equipment and technology may only be exported to States Parties to the IAEA Safeguards System An Ordinance of December 1992 sets out regulations for the import and export of nuclear materials technology equipment radioactive sources and radioisotopes while another Ordinance of 27 January 1993 regulates export control procedures for dual-purpose equipment and nuclear related materials and technology

Although there is no special legislation on liability for nuclear damage in the Russian Federation there are in force a series of laws and regulations concerning protection and compensation of citizens following the Chernobyl accident and other radiation accidents and also dealing with general measures in that context The instruments concerning protection and compensation are the following

- Act on the social protection of citizens exposed to radiation as a result of the disaster at the Chernobyl nuclear power plant as amended on 18 June 1992
- Act of 20 May 1993 on the social protection of citizens exposed to radiation as a result of the accident at the Mayak production centre and radioactive waste discharges into the Techa River in 1957

These laws define the legal status of such victims and lay down the procedure for their compensation

- Ordinance of 27 December 1991 on the applicability of the above Act on social protection following the Chernobyl disaster to citizens in high-risk categories of employment

This Ordinance concerns military personnel dealing with the consequences of radiation accidents

- Ordinance of 25 December 1992 on the regime of territories exposed to radioactive contamination as a result of the Chernobyl disaster
- Ordinance of 23 July 1993 on measures dealing with the consequences of the accident at Tomsk Oblast

These Ordinances set out a range of measures to compensate the damage suffered due to radioactive contamination

Furthermore on 11 November 1994 the Russian Parliament adopted an Act on protection of the population and territories against emergency situations with a natural or technogenic character. This Act defines emergency situations as those resulting from accidents or disasters which could occur in nuclear installations. It is therefore an important piece of legislation for preventing or mitigating the consequences of such accidents.

Decree of the President of the Russian Federation No 1923 of 15 September 1994 (SZ RF 1994 No 21 p 2304), concerns emergency measures with a view to improving the inventory and storage system for nuclear materials. The Decree defines the Gosatomnadzor as the body responsible for security and specifies that the Government should establish the measures required to carry out the State's special programme for controlling nuclear installations and materials and preventing illicit traffic of nuclear materials near the State borders.

Government Decision No 34 of 13 January 1995 (SZ RF 1995 No 4 p 301) was adopted in accordance with the above Decree. The measures it contains specify mainly the need to draft appropriate regulations.

Another Decree No 72 of 25 January 1995 deals with the support accorded by the State to restructuring and reconverting the atomic industry in the towns Zheleznogorsk and Krasnoyarsk. This Decree establishes a system of control for the environment and the residential areas affected by the Krasnoyarsk nuclear power plant's industrial activities.

Draft legislation and regulations

Several laws are being prepared

- the Bill on the utilisation of atomic energy
- the Bill on reimbursement (compensation) of nuclear damage and insurance therefor
- the Bill on State policy in the field of radioactive waste management,
- the Bill on radiation protection of the population
- the Bill on nuclear third party liability

The Bill on the utilisation of atomic energy lays down the fundamental principles to be observed when using atomic energy to safeguard health and life, protect the environment and property. The purpose of this law is to establish a legal framework for the use of atomic energy.

Chapter XII of the Bill contains provisions on liability for radiation damage. Although the Russian Federation is not a Party to the Vienna Convention, the Bill takes into account its essential elements. Liability for damage caused by operations linked to the use of nuclear energy lies with the operating body or the owner of the nuclear installation, the radiation source or the storage centre. The operating body is absolutely liable for the damage caused, irrespective of fault.

The maximum limit of liability is set at 150 million Special Drawing Rights. The operating bodies must take out insurance to cover their liability up to that limit from a special insurance fund constituted by all the operating bodies.

International conventions

On 21 December 1991, the Russian Federation declared that it would be the successor of the Soviet Union as regards the conventions, agreements and other international legal acts concluded within or under the auspices of the IAEA. They are the following:

- Treaty on the Non-Proliferation of Nuclear Weapons, ratified on 5 March 1970
- Convention on the Physical Protection of Nuclear Material, ratified on 25 May 1983
- Convention on Early Notification of a Nuclear Accident, ratified on 23 December 1986
- Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency, ratified on 23 December 1986

SLOVAK REPUBLIC

Introduction

There are four units in operation at the Bohunice nuclear power plant, with an installed capacity of 1760 MWe, and four units under construction at Mochovce. Also, construction of a low-level radioactive waste repository has been completed.

A gas-cooled heavy-water moderated reactor is being decommissioned.

Competent nuclear authorities

The Nuclear Regulatory Authority (NRA) of the Slovak Republic is the successor of the former Czechoslovak Atomic Energy Commission. It was established on 1 January 1993 and its powers are based on Act No. 2/93 of the Slovak Parliament. The NRA acts as an independent state regulatory body, reporting directly to the Government and is headed by a Chairman appointed by the Government.

The NRA is made up of a Chairman supported by a small secretariat and two departments one for inspection activities and one for safety policy and international co-operation

The Inspection Activities Department is based at Trnava, near the Bohunice nuclear power plant while the Safety Policy and International Co-operation Department is located at the Bratislava headquarters. There are also two inspection units located at the nuclear power plant sites

The responsibilities of NRA cover the following areas

- the safety of nuclear installations
- radioactive waste management
- safeguards and control over nuclear and dual-use materials
- quality assurance programmes
- safety assessments of different nuclear programmes
- international agreements and obligations in the field of nuclear safety and nuclear materials

A significant number of central bodies in the Slovak State administration are involved in various activities related to nuclear safety in particular

- the Ministry of Economy responsible for promoting and developing nuclear power and for preparing legislation
- the Ministry of Health responsible for radiation protection and the radiation monitoring network it is also the authority for control of radiation protection measures in nuclear installations and off-site
- the Ministry of the Environment with direct control of the local authority offices grants siting construction and operating licences and chairs the Government Commission for Radiological Emergencies
- the Ministry of the Interior responsible for fire protection physical protection of nuclear materials and facilities and for civil defence during radiological accidents,
- the Ministry of Labour Social Affairs and Families with the subordinate State Office for Safety at Work

Legislation in force

The legal structure for the regulation of nuclear safety in the Slovak Republic consists of two forms of basic legislation laws and regulations

Act No 2/1993 identifies the responsibilities and tasks of the Nuclear Regulatory Authority and specifies its independent status in nuclear safety matters. It lists the NRA's different activities including State supervision of nuclear materials (safeguards) in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons

Act No 28/1984 on State Supervision of the Safety of Nuclear Installations specifies the need to ensure such safety secure public health and prevent environmental damage. The Act governs the construction and operation of nuclear installations in the Slovak Republic and lays down their licensing system it provides that the NRA is the licensing authority

The current legislative framework for the State control of exports and imports of nuclear materials and sensitive items such as dual use items is provided by Regulation No 28/1977 on accountancy and control of nuclear materials Act No 547/1990 on the management of some special substances and their control and by Regulations No 50/1990 and 505/1992 Regulation No 505/1992 includes dual use items but not the trigger list

Act No 547/1990 specifies that the Ministry of Economy is the competent authority for issuing export/import licences for nuclear materials and other sensitive items while the official contact point for international bodies dealing with non-proliferation regimes such as the Nuclear Suppliers Group or the Zangger Committee is the NRA

The ex-Czech and Slovak Federative Republic did not have legislation dealing specifically with nuclear third party liability but the Civil Code applied to especially dangerous activities This legislation is applicable for the time being in the Slovak Republic (see section on Czech Republic)

Act No 254/1994 and Decree No 14/1995 establish a State Fund for decommissioning nuclear power plants and the management of spent fuels and radioactive waste The Act was adopted by the Council of State of the Slovak Republic on 25 August 1994 and entered into force on 1 January 1995

The Fund which has legal personality is managed by the Ministry of Economy which appoints the Fund's Director The Ministry has also set up a Steering Committee made up of seven members experts in the fields of nuclear energy health environmental protection economy and public administration to provide advice on the distribution of funds The Fund is financed through several resources contributions by nuclear power plant operators bank and State funding etc

Draft legislation and regulations

A Bill on the peaceful uses of nuclear energy is currently being prepared It specifies the conditions for the safe use of nuclear energy exclusively for peaceful purposes in accordance with the different international agreements concluded by the Slovak Republic

This bill also contains articles dealing with liability for nuclear damage It foresees the following amounts 50 million SDRs liability for the operator and 100 million SDRs for the state guarantee

International conventions

- Nuclear Third Party Liability
 - Vienna Convention and Joint Protocol acceded to on 7 March 1995
- Other Conventions
 - Treaty on the Non-Proliferation of Nuclear Weapons succeeded to on 1 January 1993
 - Convention on Early Notification of a Nuclear Accident succeeded to on 10 February 1993
 - Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency succeeded to on 10 February 1993
 - Convention on the Physical Protection of Nuclear Material succeeded to on 10 February 1993
 - Convention on Nuclear Safety ratified on 7 March 1995

SLOVENIA

Introduction

Slovenia has a nuclear power plant in operation (632 MWe) at Krsko, in South-East Slovenia a Triga-type research reactor (250 kWth) near Ljubjana and an uranium mine, Zirovski Vrh, which is being decommissioned following a Government decision made in 1992 for economic reasons

Competent nuclear authorities

Parliament and the Government are competent for all legislative activities in the nuclear field The Government submits bills to Parliament which passes the laws while the Government makes the regulations required for implementing such laws

In 1991 Slovenia completely reorganised the former Slovene Nuclear Safety Administration (SNSA) This previously independent and autonomous regulatory body responsible only to the Government is henceforth under the authority of the Ministry of the Environment and Physical Planning

The Act of November 1994 (Off Gaz RS /71/94) on the organisation and assignment of ministerial responsibilities redefines the Nuclear Safety Administration's main responsibilities which are now the following

- nuclear and radiological safety in nuclear installations,
- handling trade in and transport of nuclear and radioactive materials
- safeguards for nuclear installations and materials,
- physical protection of nuclear installations and materials
- liability for nuclear damage
- licensing of operators and personnel of nuclear installations,
- quality assurance
- radiological monitoring,
- inspections
- early notification in case of a nuclear or radiological accident,
- international co-operation in the field of nuclear safety

The rules applicable to public administration are defined in three laws applied by the relevant regulatory bodies

- the Act on the Government (Off Gaz RS4/93) which regulates the relations between the Prime Minister, the different Ministries and the heads of other regulatory bodies in the Government

- the Act on Administrative Procedures (Off Gaz SFRY47/86) which deals with all the legal formal procedures to be followed by the Ministries and other regulatory bodies
- the Act on Administration (Off Gaz RS67/94) which deals mainly with the territorial division of the Slovene administration at national and local levels and sets out the general powers and responsibilities of an inspector

Legislation in force

The Constitutional Law on Enforcement of the Basic Constitutional Charter on the Autonomy and Independence of the Republic of Slovenia adopted in June 1991 (Off Gaz RS1/91) concerning the autonomy and independence of the Republic provides that all the laws adopted by the Yugoslav (federal) authorities in the past which are not incompatible with the Slovene legal system will remain in force in the Republic of Slovenia pending the adoption of appropriate legislation by its Parliament

Accordingly legislation on nuclear safety in Slovenia is made up of the following previous laws

- Act of 19 April 1978 on third party liability for nuclear damage (Off Gaz SFRY22/78 and 34/79)
- Act on insurance of liability for nuclear damage (Off Gaz SRS12/80)
- Act of 5 November 1980 on implementing protection against ionizing radiation and measures for the safety of nuclear facilities and equipment (Off Gaz SRS28/80)
- Act of 21 November 1984 on Radiation Protection and the Safe Use of Nuclear Energy (Off Gaz SFRY/62/84)
- Act on the transport of dangerous substances (Off Gaz SFRY/27/90) and
- several regulations adopted in implementation of the above laws

Also to be mentioned are the regulations on civil protection defined by the Act on defence and civil protection (Off Gaz RS/15/91) and in particular by the 1994 Act on protection against natural disasters or other disasters (Off Gaz RS/46/94)

Draft legislation and regulations

A first draft of an act on nuclear third party liability was prepared in 1993. This act contains provisions which are currently incorporated into the two above-mentioned Acts and as well new provisions concerning *inter alia* the allocation of funds in case the nuclear damage exceeds the maximum amount of liability of the operator per nuclear incident. In addition in 1993 the first draft of a new act on nuclear and radiological safety was prepared. A final draft of this act should be completed by the end of 1995.

International conventions

- Nuclear Third Party Liability
 - Slovenia is a Party to the Vienna Convention (succession on 7 July 1992) and the Joint Protocol (accession on 27 January 1995)

- **Other Conventions**
 - Treaty on the Non-Proliferation of Nuclear Weapons succeeded to on 7 April 1992
 - Convention on Early Notification of a Nuclear Accident, succeeded to on 7 July 1992,
 - Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency, succeeded to on 7 July 1992
 - Convention on Physical Protection of Nuclear Material succeeded to on 7 July 1992

UKRAINE

Introduction

There are fifteen nuclear power reactors in operation in the Ukraine with an installed capacity of 13 800 MWe and five units under construction. The Chernobyl nuclear power plant has two reactors, the Khmel'nitskiy nuclear power plant has one, the Rovno nuclear power plant three, the Nikolaev plant four and the Zaporozhe has five.

Competent nuclear authorities

The State Committee on Nuclear and Radiation Safety (GAN) set up by Government Decree No. 52 of 3 February 1992, was the regulatory authority for nuclear safety in Ukraine. In December 1994 its responsibilities were transferred to the new Ministry of Environmental Protection and Radiation Safety created by Decree No. 768 of the President of Ukraine dated 15 December 1994.

The main purpose of this Ministry is to enhance environmental protection and to establish a more efficient safety system for activities connected with the use of nuclear energy, nuclear technologies and radioactive substances.

Henceforth regulatory responsibilities are separated from management tasks, which has led to a reorganisation of the Ministry. It is now made up of

- the Nuclear Regulatory Administration (NRA) which establishes regulations and standards and is responsible for issuing licences for nuclear activities
- the Nuclear Safety Inspectorate (NSI) which is responsible for organising and implementing State control over licensees, establishing programmes for supervising the safety of nuclear power plants and radiation monitoring
- the Ecological and Radiation Safety Inspectorate (ERSI) which is responsible for controlling radiation and the use of radioactive sources outside the nuclear sector (medicines, industry, R&D, etc.)

The NRA is the section with the greatest autonomy insofar as it is headed by the Deputy Prime Minister directly appointed by the President of the Republic of Ukraine

Both the NSI and the ERSI are headed by Chief Inspectors appointed by the Council of Ministers

The Ministry of Health is responsible for establishing radiation protection regulations and standards and for controlling occupational exposures to radiation

Legislation in force

The Supreme Soviet (Parliament of Ukraine) recently adopted two nuclear laws – the Act on the Uses of Nuclear Energy and Radiation Safety of 8 February 1995 and the Act on Radioactive Waste Management of 30 June 1995

The Act on the Uses of Nuclear Energy and Radiation Safety entered into force on 21 March 1995. It lays down the basic principles for the peaceful uses of nuclear energy, protection of the population and the environment and the rights and obligations of citizens in the framework of the use of nuclear energy. (The text of the Act is reproduced in the Supplement to this issue of the Bulletin.)

The Act applies to all types of activity connected with the use of nuclear energy, in particular

- the setting up, commissioning, operation and decommissioning of nuclear installations or ionizing radiation sources
- accounting and control of nuclear materials and radiation sources
- physical protection of nuclear installations and materials
- international co-operation regarding the Ukraine's international obligations in the nuclear field

The Act provides for the citizens' rights to information on the uses of nuclear energy and radiological safety and for provision of such information from the relevant undertakings, organisations and institutes.

As regards nuclear third party liability, Ukraine is not a Party to the Vienna Convention. At national level, the Act on the Uses of Nuclear Energy provides for the nuclear operator's absolute liability in case of nuclear damage, the sole exceptions to this principle being force majeure, armed conflicts or civil war.

The purpose of the Act on Radioactive Waste Management (No. 256/95) is to protect man and the environment against the hazards of radioactive waste. It establishes the basic principles governing State policy in the management of such waste.

In particular, certain provisions deal with storage operations and with the setting up of a special public fund to finance the radioactive waste management programme.

Storage operations are subject to prior licensing and are financed from the special public fund. The fund is constituted according to a procedure decided by the Government. In case of an accident due to the waste, its owner is held liable and must eliminate the source and the consequences of the resulting damage. Furthermore, residents near a radioactive waste repository are entitled to compensation.

Draft legislation and regulations

Several bills are being prepared a bill on radiological protection one on third party liability for nuclear damage and one on the transport of radioactive materials

International conventions

- Convention on Early Notification of a Nuclear Accident ratified on 26 January 1987
- Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency acceded to on 26 January 1987,
- Convention on the Physical Protection of Nuclear Material, acceded to on 6 July 1993,
- Treaty on the Non-Proliferation of Nuclear Weapons acceded to on 5 December 1994

PORTUGAL–EUROPEAN COMMISSION

Judgment of the Court of First Instance of the European Communities in the proceedings opposing ENU and the Commission

Introduction

On 15 September 1995 some five months after having begun deliberations following presentation of the oral arguments (5 April 1995) the second Chamber extended composition of the Court of the First Instance of the European Communities (CFI or "the Court") handed down its judgment in the case of Empresa Nacional de Uranio (ENU) against the European Commission concerning the application of the provisions of Chapter VI of the EAEC Treaty on the supply of nuclear fuel and on the introduction of a special course of action to ensure the sale of ENU's uranium production.

The purpose of the proceedings¹ was first, to annul (under Article 146 of the EAEC Treaty) the Commission's decision of 19 July 1993² rejecting ENU's requests for a mandatory preference in respect of the sale of its natural uranium production and secondly, to establish the liability (Articles 151 and 188 paragraph 2 of the EAEC Treaty) of the Community for the damage resulting from the alleged breach of the Treaty.

A summary of the facts and arguments of the parties was published in the last issue of the Nuclear Law Bulletin³. The problem facing ENU—a Community producer of natural uranium—was how to sell its uranium production in a depressed market. Since the Euratom Supply Agency had refused to buy the materials offered to it by ENU given that there were no Community users willing to buy them ENU asked the Commission to impose the sale of its production in preference to supplies from outside the Community and to introduce a special course of action of supply policy binding on users in order to resolve as a matter of urgency ENU's problems in selling its production. In the contested decision⁴ the Commission rejected these requests.

Position of the Court on the ENU/Commission dispute

The Court first of all examined the proceedings for annulment joining ENU's requests together to form an initial plea for the full implementation of the mechanisms under Chapter VI of the EAEC Treaty in order to ensure sale of ENU's production and a second plea for the urgent implementation of a binding special course of action.

Implementation of the Chapter VI Mechanisms

Chapter VI was analysed by the Court having regard to the objectives assigned under the EAEC Treaty to the Community notably security of supply (Article 2d) and equal access to resources (Article 52 paragraph 1). Pursuit of the objectives concerning the establishment of basic installations (Article 2c) and ensuring wide

¹This note was kindly prepared by Mr André Bouquet Euratom Supply Agency

commercial outlets (Article 2g) is dealt with more particularly in Chapters IV and V (investment) and IX (nuclear common market). This does not prevent the Agency from taking producers' interests into consideration though only within the framework of its task of ensuring regular and equitable supply and in relation to requirements affecting security of supply.

Contrary to the preference in favour of Community users reflected in the right of option provided for under Article 52 paragraph 2b, and Article 57 and in the export regime provided for under Article 59b of the EAEC Treaty, no Treaty provision guarantees preferential sales for Community production. In the absence of any legal or material obstacles within the meaning of Article 61 the Agency cannot object to imports of materials at a price lower than that for Community production even though the price asked for such production is not excessively high within the meaning of Article 66 of the Treaty. Prices are determined, "save where exceptions are provided for in this Treaty", as a result of balancing supply against demand (Article 67), and the Court concluded from this that "the Agency could therefore only oppose imports of ores or other nuclear fuels at prices lower than those sought by Community producers if those imports might jeopardise the achievement of the aims of the Treaty in particular by their effect on sources of supply" (paragraph 64 of the judgment).

As for the question of a possible Community preference where terms are equivalent (or more favourable) the Court seemed to allow the Agency a sort of optional preference. The Court held that "Specifically it follows that the Agency could not in some cases in the absence of legal obstacles preventing an order from being met in application of the first paragraph of Article 61 of the Treaty have Community preference given to Community producers and for this purpose oppose imports unless the price sought by those producers was equivalent to or lower than that specified either in the order notified to the Agency by the user in accordance with the procedure laid down in the first five paragraphs of Article 60 of the Treaty or in practice in the contract previously submitted to the Agency for signature for the purposes of its conclusion pursuant to Article 5 bis of the Regulation or their offers carried advantages for the user such as to offset any price difference" (paragraph 66 and see also paragraph 67). The Court thus makes any exercise of this option in relation to which the Agency has wide discretion subject to the pursuit of the objectives laid down by the Treaty (paragraph 67).

The Court accepted that the Agency and the Commission could reasonably have considered that the threat to ENU's production which at most amounted to 1.5 per cent of Community consumption was not such as to prejudice the security of supply (paragraph 69). The Court noted that ENU had never even lodged any formal complaint against the imports at low prices from the CIS (paragraph 70).

The Court also examined the subsidiary question of the validity of the simplified procedure. The simplified procedure described in Article 5 bis of the Agency Rules⁵ allowing for direct negotiation between users and the suppliers of their choice followed by the Agency's co-signature for the purposes of concluding the contract was adopted with reference to the Chapter VI supply system i.e. to ensure that users are supplied with nuclear products at market prices. The reason why a simplified rather than a centralised procedure was introduced is that there was a cyclical trend towards an excess of supply rendering centralisation in certain market situations ineffective. Having regard *inter alia* to the opinion of Advocate General Romer in case 7/71⁶ the Court concluded that the simplified procedure introduced by Article 5 bis of the Rules was in conformity with the system governing supplies established by the Treaty.

On the basis of these considerations the Court did not accept that the provisions of Chapter VI could be interpreted to mean that it provided for an absolute preference in favour of Community producers as long as the price asked was not excessively high.

Implementation of the special course of action

The special course of action for selling community production which was to have formed part of supply policy was an idea mentioned in a letter from Mr Cardoso e Cunha a Member of the Commission (responsible at the time for energy and the Supply Agency) as a quick solution to the problem of ENU. The ENU understood this to be a binding mechanism whereas for the Commission⁷ it meant using its best endeavours to try to sell by means of persuasion. ENU's production

The Court held first of all that the letter from Mr Cardoso e Cunha could not constitute a Directive within the meaning of Article 53 of the Treaty. This letter simply invited the Agency to take certain action but did not imply any binding measures. Since it had already been settled that the Agency was not entitled to oblige purchasers to buy ENU's production at a higher price instead of imports (in the absence of a legal or material obstacle) and that the prices envisaged in the Agency's actual proposals were higher than those paid by users for imports, neither the Agency nor the Commission had exceeded the limits of their discretion refusing to oblige Community users to purchase supplies from ENU (paragraph 85 and see also paragraph 69).

Conclusions of the Court

Having rejected the interpretation of the provisions of the Treaty proposed by ENU, the Court dismissed the action for annulment. Without examining the question of its admissibility, the Court also dismissed, as unfounded, the action for damages given the absence of irregularity in the Agency's behaviour or in the refusal of the Commission to accede to ENU's requests.

Consequently, the two actions brought by ENU were dismissed, with ENU being ordered to pay costs.

General comments of the Court on the role of the Agency

The Court made a special point of commenting on the role and discretionary powers of the Agency and the Commission, considering that contracts could be refused if the resulting imports might *jeopardise the achievement of the aims of the Treaty, in particular by their effect on sources of supply*, because *such a risk could be regarded as a legal obstacle to the meeting of an order within the meaning of the first paragraph of Article 61 of the Treaty* (paragraph 64). In assessing such risks, *where decisions concerning economic and commercial policy and nuclear policy are concerned, the Agency has a broad discretion when exercising its powers* (paragraph 67). Thus, *the Agency has a discretion to bar – using its exclusive right to conclude contracts for the supply of ores and other nuclear fuels so as to ensure reliability of supplies according to the principle of equal access to resources in accordance with the task conferred upon it by the Treaty – certain imports of uranium which would reduce such diversification*' (paragraph 68). The Court's review must be confined *to identifying any manifestly wrong assessment or misuse of power* (paragraph 67).

The Court also clearly reiterated that the simplified procedure did not take away the Agency's exclusive rights so that it could, in certain circumstances, object to contracts submitted to it (paragraph 73).

This judicial statement of the role and economic and commercial discretionary powers of the Agency with regard to nuclear supplies is strictly in line with the Court's case law⁸ and seems clearly to endorse the more political opinion already given by the Commission in at least two statements before the European Parliament and in the decisions in the Kernkraftwerke Lippe Ems (KLE) case¹⁰ that the Agency is entitled to oppose certain supply contracts relating to materials from, in particular, the CIS, which constitute a threat to the objectives of security of supply (via the diversification of sources) and the viability of the basic installations necessary for the development of nuclear energy, as laid down in Article 2 of the EAEC Treaty.

It will be interesting to see to what extent these comments of the Court, in the ENU case, allowing the Agency and the Commission large discretionary powers and the right to refuse contracts when these are contrary to the objectives of the Treaty, as well as the limitation of judicial review to 'manifest error' and the misuse of power, will affect the decision of the Court in the KLE case¹¹. Interpreting the powers of the Agency as those of a sort of 'notary' without any right to refuse contracts contrary to the objectives of the Treaty would now seem difficult to reconcile with the position adopted by the Court.

Notes and References

- 1 Action for damages T-458/93 (initially brought before the Court of Justice as number C-380/92 and then referred to the CFI) OJ No C 316 of 3 December 1992 and action for annulment T-523/93 OJ No C 306 of 12 November 1993
- 2 OJ No L 197 of 6 August 1993 p 54
- 3 Nuclear Law Bulletin No 55 June 1995 pp 23-26 see also Nuclear Fuels Vol 20 No 18 28 August 1995 p 6
- 4 OJ No L 197 of 6 August 1993 p 54
- 5 Rules of the Agency of 5 May 1960 OJ No 60 for the simplified procedure see Nuclear Law Bulletin No 55 June 1995 p 24
- 6 Conclusions of Advocate General Romer of 18 November 1971 European Court Reports 1971 p 1023 especially p 1031
- 7 Decision of 19 July 1993 OJ No L 197 of 6 August 1993 p 54 paragraph 12 sub-paragraphs 2 and 3
- 8 See CJEC 14 December 1971 Case 7/71 Commission/France Rec 1971 p 1003 with concordant opinion of Advocate General Romer in which it was confirmed that Chapter VI remained valid and CJEC 14 November 1978 Opinion 1/78 Physical Protection Rec 1978 p 2151 in which the exclusive nature of Community powers as regards supply was emphasised (in relation to outside powers) It should also be noted that in a related field, the imposition of sanctions under Chapter VII of the EAEC Treaty (safeguards) the Court recognised that the Commission had a power of discretion as regards the choice of sanction provided for under Article 83 of the EAEC Treaty (CJEC 21 January 1993 Case C 308/90 Advanced Nuclear Fuels/Commission ECR 1993 p I-309 with concordant opinion of Advocate General Jacobs)
- 9 On 18 November 1992 Sir Leon Brittan in response to an oral question by Mrs Larive declared on behalf of the Commission *By virtue of Article 2(d) and (c) of the Euratom Treaty the Community must ensure that all users in the Community receive a regular and equitable supply of ores and nuclear fuels and ensure the establishment of the basic installations necessary for the development of nuclear energy For this purpose the Euratom Supply Agency was established which, under the provisions of Chapter 6 of the Euratom Treaty – and more particularly its Article 52 (2)(b) – has inter alia an exclusive right to conclude contracts for the supply of nuclear materials Massive imports at extremely low prices coming from the CIS republics risk endangering the diversification of the Community's supply sources and hence its long term security of supply and the viability of its production industries That is why the Supply Agency in exercising its right to conclude contracts is ensuring the Community does not become over dependent on any single source of supply beyond reasonable limits and that the acquisition of nuclear materials from CIS republics takes place at prices related to those on the market that is to say prices which reflect cost of production and are compatible with prices of producers in market economy countries* On 10 November 1993 in response to a written question by Mr Delorozoy, Sir Leon Brittan declared on behalf of the Commission *In any event such transactions have to be authorised by the Euratom Supply Agency whose prerogatives enable the Community to defend itself against unwanted imports and hence against distortions harmful to its own industry*

- 10 OJ No L 48 of 19 February 1994 p 45 and No L 122 of 17 May 1994 p 30 for a summary of these decisions see Nuclear Law Bulletin No 54 December 1994 p 38
- 11 OJ No C 146 of 28 May 1994 p 13 and No C 174 of 25 June 1994 p 24

SWITZERLAND

Federal Court Denial of Right to Oppose the Transport of Nuclear Fuel by Rail (1995)

By a judgment of 19 May 1995 the Swiss Federal Court specified that persons living alongside a railroad on which spent nuclear fuel elements are carried occasionally were not entitled to oppose such transport in the framework of the transport licensing procedure

The Court found that persons living near a railroad or a railway station cannot be considered as parties to the procedure in accordance with the Federal Act on Administrative Procedures of 20 December 1968 (Collection of Federal Laws, RS 172 021) The Court deemed that such persons are not affected by a licence to transport such materials and that they had no interests worthy of protection warranting revocation or modification of the licence

By this judgment the Swiss Supreme Court reiterated the principle according to which the Federal administrative procedure does not authorise the public to intervene namely give any person the possibility of lodging an objection so as to revoke or modify a decision in any administrative procedure, without that person's interests being worthy of protection The Court recalled that nowadays many dangerous materials are carried by air sea or land without a special licensing procedure being required

The Federal Court's important judgment confirmed the position of the Federal Department of Transport, Communications and Energy which had been challenged in this case by four inhabitants of MuttENZ (Basel-countryside Canton) During the licensing procedure, the Federal Department had refused to consider as parties the four Basel citizens who had opposed the transport by rail of spent fuel elements from the Gosgen and Beznau I and II nuclear power plants The Federal Department had authorised such transport on the basis of a report by the Principal Division for the Safety of Nuclear Installations in which experts had concluded that even in the case of a serious railroad accident (in any event highly unlikely) the special containers used for this type of transport would not be sufficiently damaged to allow any radioactive release

INTERNATIONAL COURT OF JUSTICE

The New French Nuclear Tests Dispute

1 Preliminary remarks

The French government announced in June 1995 its decision to resume nuclear testing and scheduled a series of underground nuclear tests from September 1995 to May 1996 in its 150-year old *territoire* the Mururoa and Fangataufa Atolls 650 miles south-east of Tahiti¹ The French government explained that certain technical tests had to be performed first before signing as expected the Comprehensive Test Ban Treaty in August 1996 that will prohibit all underground testing These tests were necessary in the higher interests of France namely to upgrade its weapons systems and to obtain additional information essential in order to replace live tests with computerized simulations in the future²

However the resumption of nuclear testing was not endorsed by several States New Zealand and Australia in particular fearing nuclear fallout and marine radioactive pollution have strongly opposed the tests As early as 1973 both countries filed an application instituting proceedings against France before the International Court of Justice in The Hague By an interim order the Court prohibited further nuclear testing by France in the Pacific Nevertheless in its final judgment of 1974 the Court decided that because France had made several official public statements declaring its intention to stop further atmospheric testing the claim advanced by Australia and New Zealand no longer had any object This prevented the Court from taking a decision on the merits of the case namely the question of the extent to which nuclear testing is prohibited by international law

At the present time as the French government has promised to refrain from future testing after the eight tests initially planned Australia and New Zealand have again requested the Court to take provisional measures in reference to its 1974 Nuclear Tests cases reviving the quiescent debate over the lawfulness of nuclear testing

2 Reactions in the South Pacific

States in the South Pacific region on the other hand decided to undertake legal actions against France before the International Court of Justice On 21 August 1995 New Zealand requested the ICJ for provisional measures in order to take steps to prevent the planned nuclear test series of explosions⁴ Immediately thereafter Australia filed an application for permission to intervene in such proceedings⁵ Identical applications were made by the Samoan and Solomon governments on 23 August Those governments stated that they wanted to protect (their) legal interests under general international law and under applicable treaties by all means and therefore to inform the court of (their) interests before any decision that might affect them is made In addition the Marshall Islands and the Federated States of Micronesia lodged a request with the ICJ on 24 August for authorisation to intervene to prevent France from resuming nuclear tests at Mururoa Atoll in French Polynesia

The application of New Zealand contained a request to the ICJ to review the situation on the basis of a ruling on French nuclear tests it made on 20 December 1974 when the Court closed its file on the French tests after the French government switched from atmospheric to underground testing France declared that it considered that the ICJ lacked jurisdiction referring to its recognition of the Court in 1966 with a reservation regarding national defence This is why France did not appear at public sittings or file any pleas Before elaborating upon the 1995 dispute between New Zealand and France it is first of all necessary to review the 1974 Judgment of the ICJ

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3 The 1974 Nuclear Tests cases

The *Nuclear Tests* cases are noteworthy because they represented the first time that the ICJ was called upon to give a judgment in a dispute potentially concerning a relatively new source of transfrontier injury namely nuclear fallout. During the period from 1966 to 1972 the French Government carried out forty-four atmospheric nuclear tests including the explosion of several hydrogen bombs with the Mururoa Atoll functioning as its main firing site. According to New Zealand and Australia these atmospheric nuclear explosions caused widespread radioactive fallout on Australian and New Zealand territory, which gave rise to “measurable concentrations of radionuclides in foodstuffs and in man” This resulted in additional radiation doses to persons living in New Zealand and Australia and caused irreparable injury.⁶

In 1973 Australia and New Zealand each instituted proceedings against France before the ICJ known as the *Nuclear Tests* cases.⁷ Australia and New Zealand claimed that the atmospheric nuclear tests in the South Pacific Ocean were in violation of international law and that the Court consequently should prohibit France to continue with these tests and provide for interim measures of protection. The Court responded to this last claim and issued an order in which France was required to abstain from carrying out nuclear tests causing radioactive fallout in Australia and New Zealand before it would decide upon the merits of the case.⁸ France then decided to withdraw, with immediate effect its recognition of the mandatory jurisdiction of the ICJ.

Despite the Court’s interim order France continued to carry out two further series of atmospheric tests in its *Centre d’experimentations du Pacifique* in the months of July and August 1973 and June to September 1974. However by the time the subsequent phase of the proceedings began, the French authorities had made various additional public official statements that France indeed intended to refrain from making any further atmospheric nuclear tests. The Court therefore came to the conclusion that it was no longer competent to determine upon the matters submitted by Australia and New Zealand. According to the Court

*it is evident that the fons et origo of the case was the atmospheric nuclear tests conducted by France in the South Pacific region and that the original and ultimate objective of the Applicant was and has remained to obtain a termination of those tests thus its claim cannot be regarded as being a claim for a declaratory judgment*⁹

Thus, since the Court determined that the assurance of France to New Zealand and Australia that it would refrain from conducting further atmospheric testing was in effect sufficient to accomplish the objective of the claim put before the Court, it did not render a judgment upon the merits of the case. Though the Court thus refrained from making a judgment upon the (un)lawfulness of atmospheric nuclear tests, it did decide in its interim measures that ‘the French Government should avoid nuclear tests causing the deposit of radioactive fallout on Australian territory¹⁰ and territory of New Zealand the Cook Islands Niue or the Tokelau Islands¹¹

Hence from the Court’s interim measures some essential rights and duties can be derived that exist in situations where States are threatened by irreparable injury to their environments caused by ultra-hazardous activities.¹² In the case involving Australia, several judges did comment on what the legal issues would have been had the Court proceeded with the case. Judge Castro for instance argued in his dissenting opinion that a sufficient basis could be found for an international legal claim arising out of the intrusion of radioactive fallout

*the right relied on by the Applicant with regard to the deposit of radioactive fallout on its territory was considered in the Order of 22 June 1973. We must now consider whether reliance on this right makes the request for examination of the merits of the case admissible. The Applicant’s complaint against France of violation of its sovereignty by introducing harmful matter into its territory without its permission is based on a legal interest which has been well known since the time of Roman law. The prohibition of *immissio* (of water, smoke, fragments of stone) into a neighbouring property was a feature of Roman law. The principle *sic utere tuo ut alienum non laedas* is a feature of law both ancient and modern. It is well known that the owner of a property is liable for intolerable smoke or smells because he oversteps [the*

physical limits of his property] because there is immissio over the neighbouring properties because he causes injury ¹³

Apart from referring to the famous Roman theory on *sic uter tuo ut alienam non laedas* Judge de Castro further based his assertion on the Trail Smelter arbitration to point out that since

there is a general rule that there is a right to demand prohibition of the emission by neighbouring properties of noxious fumes [] the consequence must be drawn by an obvious analogy that the Applicant is entitled to ask the court to uphold its claim that France should put an end to the deposit of radioactive fallout on its territory ¹⁴

For that reason Judge de Castro concluded that the proceedings on the merits by the Court seemed to be the suitable solution to deal with this claim

The question whether the deposit of radioactive substances on the Applicant's territory as a result of the French nuclear tests is harmful to the Applicant should only be settled in the course of proceedings on the merits in which the Court would consider whether intrusion or trespass into the territory of another is unlawful in itself or only if it gives rise to damage in the latter hypothesis it would still have to consider the nature of the alleged damage its existence and its relative importance in order to pronounce on the claim for prohibition of the French nuclear tests ¹⁵

Although the Court never had an opportunity to go into the merits of the case it seems that reliance on the Trail Smelter rationale and the general *sic utere tuo* principle as confirmed by the Court in the Corfu Channel case might have provided an important basis for the Court to decide upon the lawfulness of such tests. Furthermore the fact that the *immissio* was also of an ultra-hazardous nature with potentially calamitous and prolonged injurious effects would clearly justify a lenient approach towards the establishment of a violation of international law and concurrent responsibility

In his dissenting opinion Judge Barwick the Australian judge *ad hoc* on the Court suggested that not only may it depend on the nature of the material deposited whether its mere presence is an infringement of sovereignty but that the nature of the activity leading to its being deposited might also be relevant

in resolving the question whether damage is of the essence of the right to territorial integrity in relation to the intrusion of physical matter into territory there may arise what is a large question as to the classification of substances which may be introduced with impunity by one State on to and into the territory and environment of another Is there a possible limitation or qualification of the right to territorial and environmental integrity which springs from the nature of the activity which generates the substance which is deposited or intruded into the State's territory and environment? There are doubtless uses of territory by a State which are of such a nature that the consequences for another State and its territory and environment of such a use must be accepted by that other State It may very well be that a line is to be drawn between depositions and intrusions which are lawful and must be borne and those which are unlawful on the other hand it may be that because of the unique nature of nuclides and the internationally unnecessary and unprofitable activity which gives rise to their dissemination no more need to be decided than the question whether the intrusion of such nuclides so derived is unlawful ¹⁶

However Judge Barwick's opinion on this matter remained debatable. Furthermore due to the absence of any explicit statements as to the (un)lawfulness of and the responsibility for potential damage resulting from the nuclear tests the case's antecedent value was considerably diminished. Nevertheless the opinion as expressed by most States following this case and their subsequent activity in establishing conventions specifically dealing with the prohibition of nuclear testing underground and atmospheric¹⁷ and the dangers of nuclear material in general might support the view that such tests if followed by injurious transboundary effects should not be left uncompensated

But due to the new French nuclear tests in the South Pacific and New Zealand's request for an examination of the situation on the basis of the Court's 1974 judgment the ICJ was asked to consider again the legal issues concerning the lawfulness of nuclear testing in general and underground nuclear testing in particular

4 The 1995 Nuclear Tests dispute

In 1995 the ICJ was asked to review the dispute between France and New Zealand about the nuclear testing in the South Pacific. France again challenged the jurisdiction of the Hague Court in matters of national security. New Zealand requested the Court for an examination of the situation in accordance with paragraph 63 of the Court's 1974 judgment in the case concerning nuclear tests, which reads

*Once the Court has found that a state has entered into a commitment concerning its future conduct it is not the Court's function to contemplate that it will not comply with it. However the Court observes that if the basis of this Judgment were to be affected the Applicant could request an examination of the situation in accordance with the provisions of the Statute the denunciation by France by letter dated 2 January 1974 of the General Act for the Pacific Settlement of International Disputes which is relied on as a basis of jurisdiction in the present case cannot constitute by itself an obstacle to the presentation of such a request*¹⁸

According to New Zealand the basis of the Court's 1974 judgment was already affected by the official statement made by President Chirac on 13 June 1995, in which he was said that 'France would conduct a final series of eight nuclear weapons tests in the South Pacific starting in September 1995'¹⁹

Because of the urgency of the matter and since the first nuclear test had already taken place New Zealand first asked the Court for the indication of provisional measures, *i.e.* to declare

- 1) *that France refrain from conducting any further nuclear tests at the Mururoa and Fangataufa Atolls*
- 2) *that France undertake an environmental impact assessment of the proposed tests according to accepted international standards and that unless the assessment establishes that the tests will not give rise to radioactive contamination of the marine environment France refrain from conducting the tests*
- 3) *that France and New Zealand ensure that no action of any kind is taken which might aggravate or extend the dispute submitted to the Court or prejudice the rights of the other Party in respect of the carrying out of whatever decisions the Court may give in this case*²⁰

These issues were discussed during the preliminary hearings at the Court. On 11 September 1995 a public sitting was held by the Court in order to enable New Zealand to submit their views on the following question

*Do the Requests submitted to the Court by the Government of New Zealand on 21 August 1995 fall within the provisions of paragraph 63 of the Judgment of the Court of 20 December 1974 in the case concerning Nuclear Tests (New Zealand v France)?*²¹

The attorney general for New Zealand Mr Paul East presented the legal arguments on behalf of New Zealand to the Court arguing that France's decision to proceed with its first nuclear weapons test affected the basis of the Court's 1974 Judgment. For that reason New Zealand could now according to paragraph 63 of the 1974 Judgment request an examination of the situation²². Since in the opinion of New Zealand

*[t]he Court foresaw that the course of future events might in justice require that New Zealand should have that opportunity to continue its case the progress of which was stopped in 1974*²³

New Zealand further explicitly stated that it did not seek an interpretation of the 1974 Judgment under Article 60 of the Statute of the Court nor a revision of that judgment under Article 61 of that Statute

Different from the 1974 proceedings France appeared at the public sittings. However France maintained that the Court had no jurisdiction to hear the case.²⁴ Already before the public sittings France had communicated that paragraph 63 of the 1974 Judgment could not be applied to the current situation since it was confined to atmospheric nuclear tests whereas the dispute related to underground nuclear testing. These arguments were reiterated by Mr Marc Perrin de Brichambaut, head of legal affairs at the Foreign Ministry on 12 September 1995 when France informed the Court about its views on above-mentioned question. The French representative alleged that New Zealand was misusing the ICJ as a forum for political protest against French nuclear tests. It further asserted that New Zealand's request had to be subject to the Statute of the Court and could not act unilaterally before the Court in the absence of any basis in the Statute.

*Now New Zealand does not invoke any provision of the Statute and could not invoke any that would be capable of justifying its procedure in law. It is not a request for interpretation or revision (a) nor a new Application whose entry in the General List would for that matter be quite out of the question (b).*²⁵

France furthermore contended that it had agreed to take part in public sittings merely to determine whether New Zealand could reopen the 1974 Nuclear Tests cases and that its views were confined to that question alone. New Zealand argued that there existed grounds to reopen this case which was contrary to what France asserted not confined to atmospheric tests but dealt with danger of radioactive contamination of the marine environment of the South Pacific resulting from nuclear testing of any kind. Moreover it argued that scientific research since 1974 had demonstrated that underground nuclear tests contained similar risks of radioactive contamination to the marine environment as atmospheric nuclear tests were known to produce in 1974.

The Court withdrew to examine the views presented by France and New Zealand in order to decide on 22 September 1995 whether or not there existed a case before it.²⁶ It had to answer the question whether the judgments of the Court are irrevocable after a period of ten years according to Article 61(5) of its Statute or whether the Court can derogate from that rule by inserting a clause in its judgment enabling individual States to request the Court to reopen the case. Only if the Court would have decided that there were grounds to reopen the case the Court could go on to examine the submitted request by New Zealand and review its 1974 Judgment.²⁷ In this respect New Zealand asked the Court to adjudge and declare

- i) *that the conduct of the proposed nuclear tests will constitute a violation of the rights under international law of New Zealand as well as of other States further or in the alternative*
- ii) *that it is unlawful for France to conduct such nuclear tests before it has undertaken an Environmental Impact Assessment according to accepted international standards. Unless such an assessment establishes that the tests will not give rise directly or indirectly to radioactive contamination of the marine environment the rights under international law of New Zealand as well as the rights of other States will be violated.*²⁸

Since this action was based on the Court's 1974 judgment it was necessary for the Court to decide whether New Zealand was now entitled to request an examination. Because France would not accept a new case and this would be the only way for New Zealand to get a judgment by Court New Zealand asserted that the rights for which it seeks protection all fall within the scope of the rights invoked by New Zealand in paragraph 28 of the 1973 Application of the 1974 Nuclear Tests cases but that at the present time

*New Zealand seeks recognition only of those rights that would be adversely affected by entry into the marine environment of radioactive material in consequence of the further tests to be carried out at Mururoa or Fangataufa Atolls and of its entitlement to the protection and benefit of a properly conducted Environmental Impact Assessment.*²⁹

The Court finally decided on 22 September 1995 by twelve votes to three that New Zealand's request for an examination of the situation did not fall within the provisions of paragraph 63 and must consequently be dismissed.³¹ With regard to the alleged necessity of compliance with the provisions of the Statute the Court

considered that in expressly laying down in paragraph 63 that “the Applicant could request an examination of the situation in accordance with the provisions of the Statute

*the Court cannot have intended to limit the Applicant's access to legal procedures such as the filing of a new application (Statute Art 40 para. 1) a request for interpretation (Statute Art 60) or a request for revision (Statute Art 61) which would have been open to it in any event by inserting the above-mentioned words in paragraph 63 of its Judgment the Court did not exclude a special procedure in the event that the circumstances defined in that paragraph were to arise in other words circumstances which affected the basis of the Judgment*³²

Since according to the Court, the availability of such a procedure was ‘indissociably linked’ under paragraph 63 to the existence of those circumstances the Court went on to determine whether such circumstances had arisen by the facts to which New Zealand had referred To that end, the Court first defined the basis of the 1974 Judgment by an analysis of its text The Court concluded that

*the basis of the 1974 Judgment was consequently France's undertaking not to conduct any further atmospheric tests that it was only therefore in the event of a resumption of nuclear tests in the atmosphere that that basis of the Judgment would have been affected and that that hypothesis has not materialized*³³

The Court likewise dismissed New Zealand's request for provisional measures as well as the applications for permission to intervene submitted by Australia Samoa Solomon Islands the Marshall Islands and the Federated States of Micronesia

5 A short appraisal

If the Court had decided that it had jurisdiction to decide upon the merits of the case, this would have been an excellent opportunity for the Court to provide international law with the most important - and indeed only - decision upon the lawfulness of underground nuclear testing It would have set a precedent for disputes potentially concerning the transboundary injurious consequences of nuclear activities, which up to now have never been discussed during legal proceedings in international law New Zealand put forward various relevant arguments which could have been persuasive if the Court would have had an opportunity to deal with the merits of the case Indeed in 1974 scientific information about the precise danger of radioactive contamination of the marine environment by underground nuclear tests was not available Present scientific research, however, has suggested that such danger could result also from underground nuclear tests According to some volcanologists, the Mururoa Atoll might be threatened with disintegration due to results from all the previous nuclear tests

Had this knowledge been available to and sufficiently proven before the Court in 1974, it is unlikely that the Court would have ruled that New Zealand's complaint against nuclear hazards had now ceased to exist since such tests had been restyled from atmospheric to underground testing In this respect, the dissenting opinion of Judge Weeramantry concludes

*New Zealand's complaint in 1973 was that damage was caused by French nuclear explosions in the Pacific New Zealand's complaint today is the same The cause is the same namely French nuclear tests in the Pacific The damage is the same namely radioactive contamination The only difference is that the weapons are detonated underground*³⁴

Other arguments that would have been in favour of the receivability of New Zealand's request derive from the fact that during the past two decades, the legal approach towards nuclear activities has changed considerably Sufficient evidence exists as to the emergence of an international customary rule on the prohibition of causation of transboundary injury originating from extremely dangerous activities of which nuclear hazards are generally accepted as constituting a definite example The Court would have to base itself on customary law since no bilateral treaties are in force between France and New Zealand dealing with nuclear testing or related issues With

regard to the possible injurious consequences to the South Pacific environment New Zealand referred to the 1986 *Noumea Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* which entered into force on 22 August 1990³⁵ New Zealand alluded to the fact that France (like New Zealand) had ratified this Convention which according to New Zealand provides for a prohibition of radioactive pollution of the marine environment in the South Pacific³⁶ This might have been a strong argument indeed since this Convention which was established specifically to protect the South Pacific Region including explicitly French Polynesia against environmental pollution³⁷ On the other hand the Noumea Convention does not *prohibit* nuclear testing but obliges State Parties merely to take

*all appropriate measures to prevent reduce and control pollution in the Convention Area which might result from the testing of nuclear devices*³⁸

It certainly does not oblige France to cease its nuclear tests Nevertheless the obligation to undertake an environmental impact assessment prior to any nuclear tests in the South Pacific Region is undeniably a definite obligation under the Noumea Convention³⁹ In this respect New Zealand has also cited relevant European legislation For instance under the European Council Directive 85/337 all EU Member States would have to conduct an environmental impact assessment for those projects that are likely to have significant effects on the environment⁴⁰ Although one could argue that in combination with the Noumea Convention there exists such an obligation for France it is questionable to what extent New Zealand not an EU member can base its arguments on European legislation before the ICJ Despite these uncertainties an advantage for New Zealand could have been to reverse the *onus probandi* to the detriment of France As a result France would have had to prove that the planned underground nuclear tests would not be injurious to the marine environment of the South Pacific

If the Court would have taken cognizance of these changes in international law especially with regard to important principles of environmental law such as precautionary and safety principles an obligatory environmental impact assessment prior to the nuclear tests would not have been a strange ruling Nevertheless although the Court was criticised that it overemphasized procedural formalism⁴¹ an important and welcome conclusion of the Court is the fact that it made a statement on an environmental matter The Court observed that

*its Order is without prejudice to the obligations of States to respect and protect the natural environment obligations to which both New Zealand and France have in the present instance reaffirmed their commitment*⁴

The question that needs to be answered now is whether the Court could consider that a legal claim against nuclear testing would have a valid basis under international law because of the mere fact of actual injury it produces or because of the specific venue of such explosions In other words would a violation of this obligation to respect and protect the natural environment depend upon the fact of whether the nuclear test has been taken above or underground or upon the fact whether such tests produce environmental injury?

Notes and References

- 1 The Mururoa and Fangataufa Atoll is part of French-Polynesia a so-called *Territoire d'Outre Mer* or 'TOM'. However, of all the French TOMs, French-Polynesia received a special status as a *Département d'Outre Mer* or 'DOM'.
- 2 These laboratory substitutes for nuclear tests are expected to be ready in 2002. These planned underground nuclear tests are added to a long history of some 192 French nuclear explosions. Of these 192 nuclear tests, 48 were atmospheric nuclear tests and 175 nuclear tests have been carried out in the South Pacific, including 134 underground nuclear tests in the Mururoa and Fangataufa Atoll.
- 3 The French government's nuclear tests record dates back to 1960, when the first four French tests were carried out above ground in the Sahara desert in southern Algeria. When Algerian independence followed, France had to identify an alternative site. President Charles de Gaulle decided that French atmospheric tests would continue, mainly at the Mururoa Atoll. Before the 1974 judgment of the Court, the French President Giscard d'Estaing had decreed that in the future the tests should be moved underground. In April 1992, when the US, the United Kingdom and former Soviet Union agreed on a moratorium on nuclear tests, President Mitterand acceded and declared a moratorium on the French nuclear tests.
- 4 *New Zealand Submits to the Court a Request for an Examination of the Situation in accordance with Paragraph 63 of the Court's 1974 Judgment in the Nuclear Tests Case (New Zealand v France) Provisional Measures Requested*. Unofficial Communiqué of the International Court of Justice, Doc No. 95/22 of 21 August 1995.
- 5 According to Article 62(1) of the Statute of the International Court of Justice: *Should a state consider that it has an interest of a legal nature which may be affected by the decision in the case, it may submit a request to the Court to be permitted to intervene.*
- 6 *Nuclear Tests* case (Australia v France). Request for the Indication of Interim Measures of Protection, 1973 *ICJ Reports* 99. Judgment of 22 June 1973 at paras 25-27. See also L.F.E. Goldie, *A General Review of International Environmental Law: A Survey of Capabilities, Trends and Limits*, in Hague Academy of International Law Colloquium 1973, *The Protection of the Environment and International Law* 25 (C. Kiss, ed., 1975), discussing this case at p. 93.
- 7 *Nuclear Tests* cases (Australia v France, New Zealand v France) 1974 *ICJ Reports* 253 (Merits). Judgment of 20 December 1974.
- 8 *Nuclear Tests* cases (Australia v France, New Zealand v France). Interim Orders of 22 June 1973, 1973 *ICJ Reports* 99 at p. 135.
- 9 *Nuclear Tests* cases (Merits) *supra* n. 7 at para. 30.
- 10 *Nuclear Tests* case (France v Australia) 1973 *ICJ Reports* 99 at para. 35.
- 11 *Nuclear Tests* case *supra* n. 16, 1973 *ICJ Reports* 99 at p. 135.
- 12 Goldie, *A General Review of International Environmental Law*, p. 103.
- 13 *Nuclear Tests* case (Australia v France) 1974 *ICJ Reports* 372 at p. 388.
- 14 *Ibidem* at pp. 389-90.
- 15 *Ibidem*.
- 16 *Ibidem* at p. 433 [Emphasis added].

- 17 See for instance the *Partial Test Ban Treaty* of 1963 which banned all nuclear tests in the atmosphere under water or in space. Subsequently in April 1992 the US, the United Kingdom and the former Soviet Union again agreed on a *moratorium on nuclear tests* to which also France acceded. And finally the *Comprehensive Test Ban Treaty* to be signed in August 1996 that would prohibit all underground testing.
- 18 *Nuclear Tests* cases (New Zealand v France) 1974 ICJ Reports 253 (Merits) Judgment of 20 December 1974 para 64.
- 19 *New Zealand's Request for an Examination of the Situation in accordance with Paragraph 63 of the Court's 1974 Judgment in the Nuclear Tests Case (New Zealand v France)* Public sitting to be held in The Hague on Monday 11 September 1995. Unofficial Communiqué of the International Court of Justice Doc No 95/26 of 8 September 1995.
- 20 See *New Zealand Submits to the Court a Request for an Examination of the Situation in accordance with Paragraph 63 of the Court's 1974 Judgment in the Nuclear Tests Case (New Zealand v France)* Unofficial Press Communiqué of the International Court of Justice Doc No 95/22 of 21 August 1995.
- 21 See *New Zealand's Request for an Examination* Unofficial Communiqué Doc No 95/26 of 8 September 1995.
- 22 Statement made by Mr P. East, Agent and Counsel at public sittings of the International Court of Justice in the Hague at 11 September 1995 *New Zealand's Request for an Examination of the Situation in accordance with Paragraph 63 of the Court's 1974 Judgment in the Nuclear Tests Case (New Zealand v France) Progress and conclusion of the Court's public sittings* Unofficial Communiqué of the International Court of Justice Doc No 95/27 of 12 September 1995. During this first round of oral arguments other statements on behalf of New Zealand were made by Mr Don McKay, Co-Agent and Counsel, Mr John McGrath, Sir Kenneth Keith and Professor Elihu Lauterpacht, Counsel *Ibidem*.
- 23 Statement by New Zealand *New Zealand's Request for an Examination of the Situation in accordance with Paragraph 63 of the Court's 1974 Judgment in the Nuclear Tests Case (New Zealand v France) Order of the Court* Unofficial Communiqué of the International Court of Justice Doc No 95/29 of 22 September 1995 at p. 3.
- 24 According to Article 59 of the Statute of the International Court of Justice: *The decision of the Court has no binding force except between the parties and in respect of that particular case.* France can therefore argue that the Court decided in 1974 upon the atmospheric nuclear tests only and since according to Article 60 of the Court's Statute its judgment is both *final and without appeal* combined with the fact that in Article 61(5) the mentioned ten year time limit for any application for revision has elapsed the Court has no jurisdiction to hear the present case.
- 25 Statement made by Mr Marc Perrin de Brichambaut at public sittings of the International Court of Justice in the Hague at 12 September 1995 *New Zealand's Request Progress and conclusion of the Court's public sittings* Unofficial Communiqué Doc No 95/27 of 12 September 1995 *supra* n. 28. During the first round of oral arguments other statements on behalf of France were made by Sir Arthur Watts, Professor Pierre Marie Dupuy and Professor Alain Pellet *Ibidem*.
- 26 *New Zealand's Request for an Examination of the Situation in accordance with Paragraph 63 of the Court's 1974 Judgment in the Nuclear Tests Case (New Zealand v France) Court to give its decision on Friday 22 September 1995* Unofficial Communiqué of the International Court of Justice Doc No 95/28 of 20 September 1995.
- 27 Article 61(5) of the Statute of the International Court of Justice explicitly states that: *No application for revision may be made after the lapse of ten years from the date of the judgment.*
- 28 The Court can decide to revise its judgment provided that *it is based upon the discovery of some fact of such a nature as to be a decisive factor which fact was when the judgment was given unknown to the Court and also to the party claiming revision always provided that such ignorance was not due to negligence.* Article 61(1) of the Statute of the International Court of Justice.
- 29 See *New Zealand's Request for an Examination* Unofficial Communiqué Doc No 95/26 of 8 September 1995 *supra* n. 19.
- 30 See *New Zealand's Request for an Examination* *ibidem*.

- 31 President Bedjaoui Vice-President Schwebel Judges Oda Guillaume Shahabuddeen Ranjeva Herczegh Shi Fleischhauer Vereshehtin Ferrari Bravo Higgins voted in favour and Judges Weeramantry Koroma and Judge ad hoc Sir Geoffrey Palmer voted against the decision *Order of the Court* Unofficial Communiqué Doc No 95/29 of 22 September 1995 p 5
- 32 *Order of the Court* Unofficial Communiqué Doc No 95/29 of 22 September 1995 p 3
- 33 *Order of the Court* Unofficial Communiqué Doc No 95/29 of 22 September 1995 p 4
- 34 Dissenting opinion of Judge Weeramantry *Order of the Court* Unofficial Communiqué Doc No 95/29bis (Annex) of 22 September 1995 at p 2
- 35 *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* Done at Noumea on 25 November 1987 New Caledonia repr in 26 *ILM* 38 (1987), see also the Protocol concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region 26 *ILM* 59 (1987) and the Protocol for the Prevention of Pollution of the South Pacific Region by Dumping begins at 26 *ILM* 65 (1987)
- 36 See Articles 1-2 of the *Noumea Convention* *supra* n 35 26 *ILM* 38 (1987) at pp 42-44
- 37 It should be noted however that this Convention provides in Article 26 a specific procedure for the settlement of disputes based on arbitration
- 38 Article 12 of the *Noumea Convention* *supra* n 35 26 *ILM* 38 (1987) at p 47
- 39 Article 16 of the *Noumea Convention*, *supra* n 35 26 *ILM* 38 (1987) at p 48 Reference could also be made to the 1985 *Rarotonga South Pacific Nuclear Free Zone Treaty* which entered into force on 11 December 1986 and which has been signed *inter alia* by New Zealand Australia and the Solomon Islands and Western Samoan The Treaty constitutes a regional approach to non-proliferation in the South Pacific in which parties to undertake not to permit the testing of nuclear explosive devices on their territory and not to assist any other country to test nuclear explosive devices However France did not sign this Treaty See P Papadimitropoulos *The Rarotonga Treaty IAEA Bulletin* 1/1988 at pp 29-31 see also *General Assembly Resolution 3477(XXX)* on the establishment of a nuclear-weapon-free zone in the South Pacific
- 40 See *inter alia* the European Council Directive 85/337/EEC of 27 June 1985 on the Assessment of the Effects of Certain Public and Private Projects on the Environment, *Official Journal* No L 175 5-7-1985 p 40 and Council Directive 76/464/EEC of 4 May 1976 on Pollution caused by Certain Dangerous Substances Discharged into the Aquatic Environment of the Community *Official Journal* No L 129 18-5 1976 p 23 It must be noted that within the EU some members have considered the possibility of taking legal action against France under the Euratom Treaty although so far it has remained a mere theoretical issue
- 41 Declaration of Judge Ranjeva *Order of the Court* Unofficial Communiqué Doc No 95/29bis (Annex) p 4
- 42 *Order of the Court* Unofficial Communiqué Doc No 95/29 of 22 September 1995 p 4

NATIONAL LEGISLATIVE AND REGULATORY ACTIVITIES

ARGENTINA

RADIOACTIVE WASTE MANAGEMENT

Bill on radioactive waste management (1995)

The purpose of this Bill is to guarantee protection of the environment public health and the rights of future generations in connection with radioactive waster management activities

Radioactive waste means all radioactive materials resulting from nuclear power production or nuclear applications which will not be used subsequently and whose radiological characteristics preclude their immediate dispersal into the environment

The National Atomic Energy Commission (CNEA) is the authority responsible for implementing the Act It is responsible for radioactive waste management, for co-ordinating relations between the bodies competent at local level and for setting criteria for acceptability of the radioactive waste delivered to it by the producers

The waste must be transferred to the Commission before initiating the first step in the closure of the installation concerned The successive steps in the closure procedure are not be authorised before such transfer is completed

The Act provides for a strategic plan for radioactive waste management to be revised every five years and approved by the national Congress

Furthermore a management programme for that type of waste must be established within the Commission Its aim is to

- propose the most appropriate management strategy,
- set the guidelines for the development of technologies and methods for the management of high medium and low level waste,
- co-ordinate the distribution of funds required for management activities and ensure that they are properly carried out
- establish criteria for acceptability of low medium and high level radioactive residues in the most appropriate repositories
- act together with the civil protection services, in case of a radiological emergency etc

When carrying out its work, the Commission must observe the regulations on radiation safety physical protection and safeguards established by the Argentine Nuclear Regulatory Authority (*Autoridad Regulatoria Nuclear Argentina*) as well as any other relevant national or international rules

The national management programme will be financed by a radioactive waste management fund fuelled by radioactive waste producers according to the nature, volume and characteristics of the waste produced. The procedures for administering and controlling the fund will be specified in a special act to be adopted within ninety days of the adoption of this Act.

BELGIUM

ORGANISATION AND STRUCTURE

Orders on the competence of the Minister of the Interior regarding the technical safety of nuclear installations (1995)

A Royal Order of 3 July 1995 (published in the *Moniteur Belge* of 12 July 1995) specifies certain ministerial responsibilities and designates the Minister of the Interior as the competent authority for the technical safety of nuclear installations.

Also an Order of 7 August 1995 specifies that the Minister of the Interior is the competent authority regarding the Service for Protection against Ionizing Radiation as well as for the activities within the scope of the Act of 15 April 1994 on protection of the population and the environment against the dangers of ionizing radiation and relating to the Federal Agency for Nuclear Control (see Nuclear Law Bulletin Nos 53 and 54).

Therefore the Service for the Technical Safety of Nuclear Installations (SSTIN) which came under the Minister of Employment and Labour and the Service for Protection against Ionizing Radiation (SPRI), until now under the Minister of Public Health and the Environment (see Nuclear Law Bulletin No 28) have been placed by law under the authority of the Minister of the Interior.

As soon as the Federal Agency For Nuclear Control is created both these Services will be placed under that Agency's direct control: the latter as provided by the Order of 7 August 1995 will be placed under the authority of the Minister of the Interior.

Temporarily the actual situation is as follows:

- administratively speaking, the SSTIN remains attached to the Minister of Employment and Labour. On the other hand from an operational viewpoint (dealing with licensing applications, etc.) the Service reports to the Minister of the Interior.
- the same situation applies to the SPRI,
- the Orders previously signed either by the Minister of Employment and Labour or by the Minister of Public Health and the Environment or jointly by both will henceforth be signed by the Minister of the Interior.
- the Director General of the Public Health Administration will co-ordinate both Services.

BRAZIL

ORGANISATION AND STRUCTURE

Organisation of the Presidency of the Republic and the Ministries (1995)

Provisional Measure No 1 063 of 27 July 1995 (published in the *Diario Oficial* of 28 July 1995) specifies *inter alia* the competence of the Ministry of Mines and Energy and other public bodies in the field of nuclear energy

The Ministry of Mines and Energy and the Secretariat for Strategic Affairs of the Presidency of the Republic are the competent authorities in the nuclear field. Generally, the first is competent in respect of activities resulting from the peaceful uses of nuclear energy while the second is responsible for defining and evaluating programmes and projects of a strategic nature

Furthermore, the National Nuclear Energy Commission (CNEN) attached to the Secretariat for Strategic Affairs oversees the policy planning monitoring and control of nuclear energy

CAMEROON

RADIATION PROTECTION

Act on radiation protection (1995)

This Act (No 95/08) was adopted by the National Assembly on 30 January 1995 (see Nuclear Law Bulletin No 53). Its purpose is to protect man, property and the environment against the hazards arising from all activities relating to the nuclear fuel cycle (exploration for and extraction of ores, possession, use, storage, transport of, trade in, radioactive substance and sources, setting up of nuclear devices and equipment, etc.)

The activities governed by the Act are subject to prior licensing; the State is responsible for their coordination and control.

Several sections of the Act are devoted to the principle of minimum exposure of persons to ionizing radiation. The conditions for limiting individual hazards are fixed by regulations in accordance with international rules applicable to radiation protection.

As regards third party liability, the Act provides that the nuclear operator is liable for any exposure to radiation or nuclear damage upon proof that such exposure or damage results from a nuclear incident within the meaning of the Vienna Convention of 21 May 1963 and the Joint Protocol of 21 September 1988. The operator must also take out an insurance policy, the amount of which is not specified in the Act.

Concerning penal matters, any person who induces an exposure to radiation or a nuclear incident by lack of caution or negligence is liable to a prison sentence running from five to twenty years and a fine. Penal provisions are also provided for persons undertaking any activity governed by the Act without a licence. Finally, whoever destroys for purposes of sabotage all or part of a radioactive source or nuclear installation may be sentenced to death.

FRANCE

REGIME OF NUCLEAR INSTALLATIONS

*Decree concerning the release of liquid and gaseous effluents from, and the use of water by large nuclear installations (1995)**

Decree No 95-540 of 5 May 1995, which entered into force on 8 May 1995, changed radically the rules governing the discharge of effluents from nuclear installations

This Decree was adopted pursuant to the Water Act (No 92-3) of 3 January 1992 and its implementing regulations in particular

- Decree No 93-742 of 29 March 1993 on licensing and notification procedures,
- Decree No 93-743 of 29 March 1993 on the nomenclature of operations subject to licensing or notification

Given the amendments to the rules on liquid radioactive effluents to bring them into line with the new provisions pursuant to the Water Act, the authorities decided to regroup the different administrative procedures to which discharges of effluents from nuclear installations are subject. Thus, the new Decree groups together the old licences for water use, the discharge of liquid radioactive effluents and the discharge of gaseous radioactive effluents in respect of large nuclear installations

I Scope of application

The new Decree covers

- i) liquid discharges whether radioactive or not, from and the use of water by large nuclear installations (LNIs) subject either to licensing or to notification in accordance with the provisions of the nomenclature attached to Decree No 93-743 of 29 March 1993,
- ii) gaseous discharges, whether radioactive or not, from LNIs when they may cause atmospheric pollution or odours as defined by the Act of 2 August 1961

The installations concerned are first the LNIs, within the meaning of the Decree of 11 December 1963, and also any installations classified for environmental protection purposes (ICEPs) within the site perimeter of LNIs

* This note has for the most part been drawn from an analysis prepared by the Legal and Business Relations Directorate of the Atomic Energy Commission

It should be noted that those installations covered by national defence secrecy and for which the Minister of Defence is not responsible** are subject to the provisions of the new Decree which provides as far as they are concerned that licensing applications are submitted to a public enquiry subject to the provisions of the Decree of 5 July 1985 laying down the conditions for the protection of national defence secrecy. The present Decree also provides that such applications shall be appraised by persons entitled to access to national defence secrets within the services designated by decision of the Prime Minister.

II Responsible authorities

a) Authorities responsible for the decision whether to grant a licence

There are no major changes overall since the 1974 Decrees gave responsibility for decision-making to the Ministers responsible for the Environment, Health and Industry. As far as liquid discharges are concerned the Minister responsible for monitoring water quality was also involved.

Section 11 of the new Decree provides that licences are granted by joint Order of the Ministers responsible for Health, Industry and the Environment.

However, given the scope of the new Decree (radioactive and chemical discharges from LNIs and ICEPs within the perimeter of LNIs and the use of water) a number of operations which previously fell to the *Prefets* to decide are now authorised by or notified to the Minister. In particular decisions relating to chemical non-radioactive discharges from LNIs which previously fell to the *Prefets* to take now fall within Ministerial jurisdiction.

b) Authorities responsible for investigating applications

As far as the authorities involved in the licensing procedure are concerned the new Decree changes almost nothing.

It should however be noted that Section 6 makes the Nuclear Installations Safety Directorate responsible for dealing with licensing applications and notifications. This is noteworthy since it is somewhat unusual for a Council of State Decree to specify the administrative service responsible.

In the case of large nuclear installations for which the Minister of Defence is not responsible but which are covered by national defence secrecy any operations subject to licensing or notification including the release of gaseous effluents are subject to the provisions of the new Decree. However as seen above and in compliance with Section 4 a) licensing applications or notifications are dealt with by persons with access to national defence secrets within the services designated by decision of the Prime Minister.

c) Supervisory authorities

While the 1974 Decrees made the Central Service for Protection against Ionizing Radiation (SCPRI) responsible for the technical control of radioactive pollution and for monitoring discharges by operators the new legislation makes no mention of the Office for Protection against Ionizing Radiation (OPRI) the successor to the SCPRI.

There is a special procedure for those for which the Minister of Defence is responsible (Decree No 94 1033 of 30 November 1994).

It is likely that the OPRI will, in practice continue to carry out this supervision. Section 19 of the Decree of 4 May 1995 provides that the monitoring of radioactive effluents is to be carried out under the authority of the Minister responsible for Health and that monitoring of other types of effluents falls within the jurisdiction of the Minister responsible for the Environment.

Section 20 provides that should the Minister responsible for Health find that certain provisions of the licensing Order or general or supplementary requirements have not been complied with, he informs the *Prefet* and the head of the establishment and refers the matter to the Ministers responsible for Industry and the Environment to allow possible application of the provisions of Section 13 of the Decree of 11 December 1963, enabling them to take safety measures.

III Procedures provided for by the new Decree

Unlike the 1974 Decrees which provided only for licences for the release of radioactive effluents and, consequently, dealt with the licensing procedure alone, the new Decree provides, on the one hand, for a procedure for operations subject to licensing (Title II), and on the other hand, a procedure applicable to operations subject to notification (Title III).

Under the new Decree and in accordance with the provisions of the nomenclature annexed to above-mentioned Decree No. 93-743 of 29 March 1993, operations subject to licensing are:

- discharges of liquid radioactive effluents from an LNI (items 2.3.2 and 3.2.1 of the nomenclature)
- discharges into the atmosphere of gaseous effluents, whether radioactive or not, from large nuclear installations when these are capable of causing atmospheric pollution or odours within the meaning of the above-mentioned Act of 2 August 1961 [Section 1 (2)] of the new Decree.

In accordance with the provisions of the above-mentioned nomenclature, the following operations are subject either to licensing or notification:

- the use of water (whether underground or surface water),
- discharges from ICEPs situated within the perimeter of LNIs.

1 Licensing procedure

Abolition of the preliminary study

The first amendment enacted by the new Decree is the abolition of the preliminary study provided for under Section 3 of the Decree of 6 November 1974 and Section 4 of the Decree of 31 December 1974.

In practice, this preliminary study made the licensing procedure more cumbersome without any real advantage for either the operator or the authorities.

The two Orders of 10 August 1976 concerning the manner in which preliminary studies should be carried out in relation to licensing applications for the discharge of gaseous or liquid radioactive effluents from nuclear installations will have to be either amended to apply to licensing applications, or repealed.

Licensing applications

Seven copies of each application are sent to the Ministers responsible for Industry and the Environment by the person wishing to carry out an operation subject to licensing

Section 8 of the new Decree specifies the contents of the application these being essentially the same as those laid down by the above-mentioned Decree No 93-742 of 29 March 1993

The studies provided for in the application must relate to all installations operated or planned by the applicant and involved with the operation in question

The Ministers responsible for Industry and the Environment forward the application completed where necessary to the Minister responsible for Health and the Minister responsible for Public Safety for opinion The application together with the opinions of these Ministers is then sent to the *Prefet* of the *Departement* in which the discharges or water use are to be carried out

Public inquiry

Section 10 of the new Decree provides that the *Prefet* shall convene an administrative conference between the Government Departments he feels should be consulted and submits the application to a public enquiry on the conditions laid down in Sections 7 to 21 of Decree No 85-453 of 23 April 1985 as amended applying to LNI's the provisions of the Act No 83-630 of 12 July 1983 relating to the democratisation of public enquiries and the protection of the environment

All public inquiries relating to operations governed by the new Decree are therefore now covered by the same item of legislation which changes the previous situation in which public enquiries in relation to liquid radioactive discharges were subject to the provisions of the Decree of 23 June 1973 to which the Decree of 31 December 1974 referred

Inquiries are opened at the *mairie* of the *commune* in which the operation is to be carried out Should it seem likely that the effects of the operation will be felt beyond the borders of the *commune* the *Prefectoral Order* lists the other *communes* in which the inquiry must also be opened

The *Prefet* asks the opinion of the municipal councils of the *communes* concerned and where relevant of the *personne publique gestionnaire du domaine public* in accordance with the provisions laid down by the above-mentioned Decree No 93-742

The file is then sent for information to the Chairman of the local Water Board the *Conseil departemental d'hygiene* and the *mission deleguee de bassin* are also consulted

Lastly the *Prefet* sends the results of the administrative conference consultations and enquiry together with his opinion to the Ministers responsible for Industry and the Environment

The Order of 10 August 1976 concerning releases of gaseous radioactive effluents from nuclear installations and the public inquiry provisions contained in Section 5 of Decree No 74-945 of 6 November 1974 will have to be amended to take account of the provisions of the new Decree In particular it will have to apply to all operations subject to licensing and no longer only to gaseous radioactive releases

Licences

As before licences are granted by joint Order of the Ministers responsible for Health Industry and the Environment

As concerns the content of the licensing Order the new Decree is more detailed and more complete. In particular it provides that the Decree must contain arrangements for information of the public.

It also provides that the Order must be notified to the *Préfet* and mayors of the *communes* on whose territory the operation is to be carried out and that the Order should be published in the Official Gazette. It also stipulates that the Order must be posted for at least a month in the *mairies* of the *communes* concerned.

Whereas the 1974 Decrees provided that the licensing conditions were fixed for a period of three years and that following this period they could be changed, subject to one year's notice by interministerial Order, Section 13 of the new Decree provides that 'At the request of the licence holder or on their own initiative, the Ministers responsible for Health, Industry and the Environment may change by Order the conditions laid down in the licensing Order'. These conditions may now therefore be changed at any time but the licences become permanent (subject to change). The amending Order is adopted after consulting the *Conseil départemental d'hygiène* before which the operator may present his comments on the conditions laid down in Section 7 (2) of Decree No. 93-742 of 29 March 1993.

Any change to the installation or its operating practices must be notified to the Ministers of Industry and the Environment who, after consulting the Minister of Health, may require a new licensing application to be filed.

Lastly, Section 14 of the new Decree provides that joint Orders of the Ministers responsible for Health, Industry and the Environment will lay down the general technical requirements relating to limits and arrangements for the use of water and releases of effluent. These Orders will replace the two Orders of 10 August 1976 relating to the general rules applicable to the determination of the limits and arrangements for discharges of radioactive effluents, to environmental monitoring measures and to the ways in which they are controlled by the SCPRI, which will be repealed.

2 Notification procedure

Notification and interministerial Orders

Section 15 of the new Decree provides that any person wishing to carry out an operation subject to notification must send three copies of the notification to the Ministers responsible for Industry and the Environment.

Receipt is acknowledged by the Ministers who send the person making the notification a copy of the general technical requirements applicable. The *Préfet* and the mayor of the *commune* concerned also receive a copy.

If, when making the notification or subsequently, the notifier wishes to have certain requirements changed he makes a request to the Ministers responsible for Industry and the Environment who consult the Minister of Health. After submitting the proposal to the notifier, the three Ministers take a decision by joint Order.

The Order is published in the Official Gazette and notified to the *Préfet* and mayors of the *communes* concerned. It is also posted at the *mairie* for at least one month and third parties may read the general requirements on the spot.

The notifier must inform the Ministers responsible for Industry and the Environment of any change to the installation concerned and the Ministers may, after consulting the Minister responsible for Health, require a new notification or, if relevant, the filing of a licensing application.

IV The consequences of the new decree for existing legislation

1 Main changes

Section 23 of the new Decree repeals

- Decree No 74-945 of 6 November 1974 relating to discharges of gaseous radioactive effluents from large nuclear installations and other nuclear installations on the same site
- Decree No 74-1181 of 31 December 1974 relating to discharges of liquid effluent from nuclear installations

2 Transitional provisions

Under Section 24 of the new Decree licensing applications and notifications submitted before the date of entry into force of the new Decree will continue to be dealt with in accordance with the old procedures

Decisions taken following these procedures are equivalent to licence or notification decisions under the new Decree

ITALY

RADIATION PROTECTION

New Italian regulations on protection against ionizing radiation (1995)

Introduction

The new Italian legislation in the field of the radiation protection of workers and the public was adopted after more than thirty years application of the Decree of the President of the Republic (DPR) No 185/64 which transposed into the national law the first Euratom basic standards. It must be emphasized that during all this time Decree No 185/64 could be regarded as largely successful both intrinsically and as compared to other similar legislation. Its most important characteristic was probably that it gave priority to prevention over protection, an approach which was surely *ante litteram* in the context of the regulation of the safety of human activities in general.

Naturally over its thirty years of application the Decree needed updating and that on many occasions. The reasons for this were

- the experience gained in implementing the Decree revealed certain shortcomings, gaps, difficulties of practical application and administrative complications and these had to be remedied

- the many amendments made over time to the Community regulations on which Italian radiation protection legislation is of course based, both as regards substance and form

In the third place, the need for revision became increasingly urgent over the years given the significant changes in the national institutional framework since this also has implications for the system of radiation protection these changes include the administrative decentralisation of many central government functions to the regions the reorganisation of these functions within regional structures and the creation of certain local authorities in the field of the health of workers and the public of a Ministry for the Environment and, lastly of the National Environmental Protection Agency (*Agenzia nazionale per la protezione dell ambiente - ANPA*)

The recent revision effected by Decree No 230 of 17 March 1995 thus also made possible the long-awaited and indispensable alignment of Italian legislation with Community regulations It took place after years of Parliamentary and Governmental discussions proposals and initiatives which in many cases fell foul of national political vicissitudes It should also be said that other events contributed towards these long and serious delays Though these events nevertheless had political consequences affecting the legislative programme The most important was the 1987 referendum on the repeal of certain provisions concerning the siting of nuclear installations a referendum which led to a moratorium in the nuclear sector (which, moreover is still *de facto* in force) and to repeated postponements of the revision of radiation protection regulations as a whole

The current review of European Union radiation protection Directives to some extent of course renders obsolescent the efforts made by the Italian legislature in adopting Decree No 230 However some of the new technical and scientific provisions in the Directives being revised were sufficiently well-known to have been included already in the text of the new Decree In any event the fact that this Decree has transposed into Italian law all current radiation protection Directives must be considered as extremely positive having regard also to the fact that the scope of these Directives is not limited to strictly technical provisions

1 Legislative Decree No 230 origin and drafting

The origin of the new Decree lies in the important change made at the end of the 1980s to Italy's traditional legislative process making it possible to align national legislation with Community law in a more simple and quasi-automatic fashion

Already in 1989 Act No 86 of 9 March (the Pergola Act after the Minister responsible at the time for Community policy) introduced a provision designed to ensure the incorporation of Community law into national law a provision based primarily on a delegation of legislative power from the Parliament to the Government

As from 1990 several items of legislation were passed delegating powers for transposing Community regulations, including those concerning protection against ionizing radiation¹ Decree No 230 introduces an updated structure and includes all possible improvements based on the very long experience gained from application Decree No 185 while at the same time retaining a very similar layout and drafting The new Decree is comprehensive incorporating Directives which did not previously exist and gathering into a single text various scattered national provisions which had been adopted at different times It should be noted that before the new

¹ Following the Pergola Act three new Directives (i.e. half the number of those already in force) were adopted although the Directives of 1980/1984 remain the most important basis for radiation protection

The first Italian Community Act was adopted in 1990 (Act No 212 of 30 July) delegating to the Government the power to transpose Directives No 80/836 No 84/466 and No 84/467 incorporated into the 1991 Community Act (No 142 of 19 February 1992) extending the delegation period laid down in the above mentioned Community Act No 212 and including Directive No 618/89 the last Community Act which concerns us here (for 1993 the Act No 146 of 22 February 1994) also extended the delegation period laid down in Act No 142 and included the two Directives adopted meanwhile (No 90/641 and No 92/3) Decree No 230 is thus based on the delegation of Act No 146/94

regulations will be fully and properly completed numerous implementing Decrees will have to be adopted (as was the case for Decree No 185) something which in terms of Decree No 230 should happen by the latest by the end of 1995. The entry into force of different parts of the new Decree is to be staggered and detailed transitional provisions have been adopted to regulate activities and situations falling within the scope of the Decree until its full entry into force.

2 Structure and contents of Decree No. 230/95

In looking in greater detail at the Decree we shall adopt a systematic approach highlighting for each topic the major changes to the previous rules.

2.1 Use of sources and certain installations emitting ionizing radiation

This is an exception to the general approach adopted by the legislature consisting as far as possible of retaining the layout and contents of the previous corresponding legislation.

Chapter V introduces a comprehensive administrative regime covering all sources of radiation gathering together in more coherent form all the already existing provisions and introducing new ones. The purpose of the revision was to introduce a system of control making it possible to monitor every source of radiation from its arrival on the market until its final disposal, this, by means of the prior notification of the import and production of radioactive materials and of products, equipment or apparatus containing such materials, of the notification of the possession of radioactive sources and of when such possession ceased, of the keeping of registers and of the communication of summaries of business transactions and transport operations, including those involving radioactive waste. Provision is also made for the designation of given sources as being of an approved type incorporating specific provisions contained in Community Directives.

As regards safety and protection standards for different modes of transport these will be dealt with for each transport mode by Ministerial Decrees in accordance with a simpler procedure than the one prevailing previously (see the Basic Nuclear Act No 1860/62 as amended by DPR No 1704/65 which as regards certain licensing aspects remains in force).

Chapter VI deals with the licensing of installations – other than nuclear installations properly so called – in which any kind of operation involving the use of radioisotopes or of apparatus emitting ionizing radiation is carried out. Similar provisions were contained in different chapters of DPR No 185/64 but were more complex, whereas now there are only two types of licence (central and peripheral) depending on the importance of the activity concerned. A licence is required for the use of radioactive sources in installations, establishments, institutes, medical facilities, laboratories, etc. when activities involve the possession, use and handling of radioactive materials or products or apparatus containing such materials, or the use of apparatus emitting ionizing radiation. Use is classified as being either category A or category B depending on the conditions to be established by Decree of the Prime Minister on the proposal of the Minister of Industry and in consultation with the other Ministers concerned¹. For category A use the authorisation of the Minister of Industry is required while in other cases such authorisation is given by the provincial authorities, except as regards activities involving

It has to be remembered that DPR No 185/64 did not in fact deal with safety and protection standards concerning the transport of radioactive substances since the adoption of such standards had been planned in implementation of certain provisions of the above mentioned DPR No 1704. The case of transport is not the only one in which implementing Decrees are used to complete the relevant regulations. In fact such Decrees also regulate notification procedures, conditions for possession, arrangements of transport operation, summaries, fissile material accounting, etc.

¹ These provisions do not apply to mining operations or to nuclear installations properly so called, these being dealt with elsewhere in the Decree.

exposure to radiation for medical purposes, in which case the competent authorities will be designated by specific regional legislation

2 2 Radioactive waste

Prior authorisation is also required for the treatment storage and disposal of radioactive waste. The activity levels of waste in whatever form, requiring authorisation are to be laid down by interministerial Decree. The competent authorities will be established by regional legislation which will also lay down the conditions for granting licences.

One important innovation is that the collection of waste (even if carried out by third party) requires a licence from the Ministry of Industry, which is also to lay down, by Decree its procedures for granting licences. A second (partial) innovation is the special licence, granted by Decree of the Minister of Industry in consultation with the other Ministers concerned, required for the construction of waste repositories. An implementing Decree will lay down the levels, concentrations and types of waste concerned, and the procedures for granting licences. In the case of final storage facilities, it should be noted that the new procedure takes into account the need to comply with that governing environmental impact assessments which have already been provided for such facilities under the implementing standards of Act No. 349/86 creating the Ministry of the Environment.

Lastly, a 'mandatory' innovation has been introduced concerning the specific provisions on transfers of radioactive waste incorporating Community Directive No. 92/3 into Italian law. Such transfers together with the transit of waste through Italian territory, are subject to a licence from the authorities competent for the activities within the framework of which the transfers are carried out. In other cases including transit the competent authority is the Minister of Industry. The criteria, arrangements and procedures for granting licences will be dealt with in an interministerial Decree.

2 3 Nuclear installations

The most important change in this respect is the special procedure introduced for the dismantling of nuclear installations, the absence of which in DPR No. 185 had led the competent authorities to apply by analogy – not always easy to do – the regulations relating to construction and operation.

The new **Chapter VII** requires a licence from the Ministry of Industry for dismantling operations and this licence may where appropriate be granted in successive stages. Chapter VII also specifies the procedure and conditions for carrying out dismantling operations while a Decree of the Minister of Industry lays down the requirements in relation to the state of the installation and of the site on the basis of a final report submitted by the operator. Lastly, Chapter VII lays down the conditions for suspending or revoking licences.

2 4 Protection of workers

Chapter VIII introduces important changes relating to the classification of exposed workers and of workplaces as well as in the field of dose limits so as to incorporate Directive No. 90/641 on outside workers into Italian law.

With regard to the classification of workers and working areas, the Ministry of Labour and Health is responsible for establishing and keeping up to date by Decree, the criteria for radiation protection. These criteria relate also to the introduction of physical monitoring and the identification of categories of workers. It is provided that dose limits will be laid down by Decree of the Prime Minister on the proposal of the Minister of Health and in consultation with the Ministries of the Environment of Labour and of Civil Defence and following the opinion of the different bodies concerned such as the ANPA (see Introduction). The dose limits must be kept up to date complying with the radiation protection objectives laid down by European Union Directives. It is for employers (and other managers within the enterprise) to adopt all measures required to avoid exceeding dose limits.

As for outside workers certain special provisions have been introduced either for firms or for the operators of controlled areas using such workers the protection of whom must be ensured directly or under a contractual arrangement with third parties or with the outside firms employing them. The most important innovation is probably the introduction for each worker of a personal radiological monitoring document to be used for the purposes and in accordance with the procedures established by the above-mentioned Directive No 641. Each worker must have his own document to be completed by those in charge of physical and medical controls. A Decree of the Ministry of Labour is to lay down the provisions for introducing this document and keeping it up to date.

The provisions of Chapter VIII also ensure a link with the general rules regarding the safety and protection of workers as resulting from EEC Directive No 391/89.

Attention should also be drawn to some changes concerning the radiation protection of pregnant women in particular the ban on assigning such women to activities involving a risk of exceeding the dose limits laid down for workers without prejudice to the general provisions concerning the protection of mothers at work. The existing ban on exposing nursing mothers no longer concerns only the risk of contamination since the dose limits applicable are stricter than before based as they are on those laid down for non-exposed workers.

The last innovation concerns the express inclusion of the concept of protection optimisation and the position of qualified experts. Employers are obliged to adopt all necessary safety and protection measures in application of the ALARA principle (As Low as Reasonably Achievable) based on the ICRP recommendations and incorporated into the Euratom basic standards Directives. As for qualified experts it has now been made clear that they have to be someone other than the employer. In the past these two subjects had given rise to uncertainty and debate the first because of the importance of the optimisation principle especially regarding operational radiation protection and the second for obvious reasons of dialectic conflict between the employer and the expert given the latter's role and functions within the enterprise.

2.5 Protection of the public and the environment

Chapter IX contains two main innovations a reference to stricter dose limits (like Chapter VIII) and special provisions dealing with the radiation protection of patients (who constitute a special category of the public) undergoing medical examinations and treatment. Under these provisions Directive No 84/466 is formally transposed into Italian law even though a Ministerial circular of 1984 had already incorporated the main provisions of this Directive. It is provided that the principles of justification and optimisation apply to patients and rules are laid down as to the criteria for and methods of using radiation in medicine as indicated in Directive No 466. Detailed provisions are also included as regards the inventory of radiological medical apparatus quality controls for such apparatus and personal radiological records for each patient.

The provisions of Chapter IX also deal more broadly and in more explicit detail with the protection of the environment (including the constituents of the natural environment) and with the measures to be taken in the event of a significant increase in the exposure levels of individuals (in implementation of the ALARA principle). In addition new general and operational provisions have been introduced to protect the public. The monitoring of environmental radioactivity has been entrusted to the new competent Ministry (with ANPA being responsible for co-ordinating radioactivity measuring networks).

2.6 Emergencies

In dealing with emergency plans **Chapter X** is presented in a new form compared to the previous provisions in the first place because it places nuclear emergency plans in the framework of national plans for measures of protection in the event of a radiological emergency throughout the country. Such national plans are the responsibility of the Civil Defence Department in agreement with the Ministry of the Interior and the ANPA and take account also of emergencies resulting from accidents which took place outside national territory or in the course of the transport of nuclear substances. Reference dose limits or measures to be adopted in the event of an emergency are laid down by Decree of the Prime Minister (on the proposal of the Minister of Health and

in collaboration with the other Ministries and bodies involved) A centre for preparing and assessing the information required for co-ordinated emergency planning has been set up under the auspices of the ANPA Safety plans must be tested periodically to check their effectiveness

Secondly **Chapter X** introduces provisions to incorporate Directive No 618/89 into Italian law This has been done in the case of the prior information of the public and for real cases of radiological emergency In addition a standing committee to inform the public has been created under the auspices of the Ministry of Health with the main task of preparing and keeping up to date 'prior' information and of determining the most effective means of communicating this information, moreover the committee is responsible for preparing general information diagrams to be circulated in real emergencies Lastly it is provided that the European Commission (and any Member States concerned) should be kept up to date on the information, as established under the above-mentioned provisions supplied to the public

2.7 Penalties and entry into force of Decree No 230

2.7.1 There are a few new provisions relating to sanctions namely an updating of a good number of fines to take account of the fall in value of money over the long period in which the previous legislation was applied although some of these fines had already been amended in previous years in the context of general reviews, secondly, changes to certain penalties concerning safety at work while at the same time retaining those changes introduced fairly recently in the system of penalties in this sector in general thirdly, the introduction of new penalties with regard to certain activities and operations included *ex novo* in Decree No 230 Obviously almost none of these penalties will be applied until the Decree enters into force

2.7.2 As already mentioned, the new Decree is to enter into force in stages Clearly given its complexity and scope provision had to be made for transitional rules allowing gradual implementation, in particular to ensure that licences already granted and those currently the subject of an application (in accordance with the provisions of Decree No 185/64) remain valid for some time i.e. until the full entry into force of the new legislation Another consideration is the numerous implementing Decrees (mentioned in the Introduction with several examples having been given in previous paragraphs) which are envisaged in order to complete the legislative framework introduced by Decree No 230

Generally speaking the date of entry into force for most of the Decree's provisions is 1 January 1996, though in some cases the date envisaged is three months after the entry into force of the Decrees implementing the provisions concerned Some of these concerning the physical monitoring of non-category A workers are to apply from July 1996

It should be added, however that to allow an initial and immediate application of the substantive aspects of the new regulations Decree No 230 includes a number of annexes relating to the most important implementing Decrees (for example the scope of application of the legislation dose limits for workers and the public etc.)

Conclusion

This inevitably brief analysis of the new Italian legislation on radiation protection is nevertheless evidence of the efforts made by the legislature to ensure its compliance with the general and specific rules on this subject issued by Euratom Italy is thus now at least on a par with most Member States of the European Union while helping to create the conditions required for the introduction of common and standardized rules on radiation protection within the framework of the Single Market

JAPAN

GENERAL LEGISLATION

Amendment of the Regulation Law and the Prevention Law (1993)

The Law (No 89 1993) to amend the Law for the Regulation of Nuclear Source Material Nuclear Fuel Material and Nuclear Reactors (the Regulation Law - Law No 166 1957) and the Law concerning Prevention from Radiation Hazards due to Radioisotopes etc (the Prevention Law - Law No 167 1957) was published in the Official Gazette of 12 November 1993 It entered into force on 1 October 1994

Both laws were amended due to the enactment of the Administrative Procedure Act (No 88 1993) which governs administrative procedures for citizens in general Therefore as regards the nuclear field it also concerns procedures for licensing cancelling and decommissioning nuclear installations and equipment The Act provides that any person required to comply with an administrative order which deprives him of a right may ask the authorities for an explanation (a hearing) This could apply for example regarding the cancellation of a licence

However since the Regulation Law and the Prevention Law have a stricter more detailed procedure for hearings in such cases Law No 89 1993 provides that both laws supersede the Administrative Procedure Act as regards the activities within their scope

THIRD PARTY LIABILITY

Amendment of the Compensation Law (1994)

The Law on Compensation for Nuclear Damage (Law No 147) of 17 June 1961 (the text of the Law is reproduced in the Supplement to Nuclear Law Bulletin No 45) has been amended by Law No 85 1994 published in the Official Gazette of 1 July 1994 Law No 85 entered into force on 1 July 1995

The Compensation Law was amended due to the enactment of the Product Liability Law which eases the consumer s burden of proof and specifies the producer s strict liability As both the laws provide for strict liability and a nuclear operator could be considered a producer within the meaning of the Product Liability Law a distinction was made to clarify the scope of application of the Compensation Law

The amendment prescribes that nuclear damage which occurs due to the operation of a nuclear reactor (this includes fuel fabrication spent fuel reprocessing etc) is outside the scope of the Products Liability Act

MEXICO

TRANSPORT OF RADIOACTIVE MATERIALS

Rules on the characteristics of packages for the land transport of dangerous materials and wastes (1995)

The 1993 Regulations for the land transport of dangerous materials and wastes establish the conditions for such transport (see Nuclear Law Bulletin No 54) They specify that further rules would be issued to ensure the safety of packages for such materials and waste

Accordingly the Secretariat for Communications and Transport issued Official Rules NOM-003-SCT2/1994 providing for the characteristics of labels for packages for the land transport of dangerous materials and wastes including radioactive materials which are categorized as Class 7 dangerous materials

The Rules were published in the *Diario Oficial* of 21 August 1995 and entered into force the day following their publication

FOOD IRRADIATION

Rules setting maximum radionuclide contamination limits for imported foodstuffs (1995)

Official Rules NOM-088-SSA1-1994 of 10 May 1995 were issued for the purpose of protecting the health of the population and consumers against the hazards which might arise from imported foodstuffs

These Rules are mandatory for any person or legal entity importing foodstuffs for wide distribution on the national territory. The radionuclide level in such foodstuffs must not exceed the limits set by the Rules.

The Secretary of Health is the competent authority for implementing and supervising observance of the Rules.

The Rules were published in the *Diario Oficial* of 28 June 1995 and entered into force thirty days following their publication.

SWEDEN

GENERAL LEGISLATION

Amendments to nuclear legislation (1995)

There have been a number of amendments to Swedish legislation on nuclear safety and radiation protection. Two amendments stem from the entry of Sweden in the European Communities, one concerns waste disposal and another concerns exports.

The Act on Nuclear Activities (No 3 1984) was amended to conform to the Euratom Treaty regarding certain clauses on sanctions in case of non-observance of the provisions (Sections 18 and 27 as amended by SFS 1995 875 of 22 June 1995). It was also amended to extend the prohibition to dispose finally of spent nuclear fuel and nuclear waste from other countries to intermediate storage of such material pending its final disposal (Section 5a as amended by SFS 1995 875). The text of the Act on Nuclear Activities is reproduced in the Supplement to Nuclear Law Bulletin No 33.

The Radiation Protection Act (No 220 1988) has also been amended to conform to Community legislation (the Shipment Directive) concerning licensing in connection with the production, possession, use of, trade in, etc of radioactive materials and radiation protection (Section 20a as amended by SFS 1995 874 of 22 June 1995). The text of the Radiation Protection Act is reproduced in the Supplement to Nuclear Law Bulletin No 42.

The last amendment is of an administrative nature the provisions on the export from Sweden of nuclear material and certain equipment have been transferred from nuclear legislation to the legislation on strategic products (SFS 1995:501 of 31 May 1995)

THIRD PARTY LIABILITY

Amendment of Nuclear Liability Act to increase the nuclear operator's liability limits (1995)

On 26 January 1995 the Swedish Government submitted a proposal to Parliament to amend the Nuclear Liability Act (Act No 45 of 8 March 1968) as amended to increase the maximum amount of compensation to be paid by a nuclear operator in case of a nuclear incident

The amendment increases the maximum amount of liability from 1 200 million Swedish kronor to 175 million Special Drawing Rights (SDRs) This new amount, expressed in SDRs corresponds to approximately 1 925 million Swedish kronor It is proposed explicitly to refer to SDRs as the unit of account in the legislation instead of the Swedish krona Also as previously the amounts of liability do not include any interests or costs

This amendment which modifies Section 17 of the Nuclear Liability Act entered into force on 1 July 1995

UNITED KINGDOM

ORGANISATION AND STRUCTURE

Setting up of the Environment Agency (1995)

The Environment Agency a non-departmental public body was set up under the Environment Act of 19 July 1995 The Agency is vested with extensive powers and in particular it brings together three bodies the National River Authority the Waste Regulation Authorities and the Inspection of Pollution

As regards the nuclear field the functions of the chief inspector for England and Wales concerning authorisations for radioactive waste disposal will be transferred to the new Agency These functions are specified in Section 13 of the Radioactive Substances Act 1993 At present such authorisations are granted jointly by the chief inspector and the Minister of Agriculture, Fisheries and Food (England) and by the Secretary of State for Wales (Wales)

It is expected that as from 1 April 1996, the power to grant authorisations to discharge radioactive waste will be exercisable by the Environment Agency alone after consulting the Minister of Agriculture Fisheries and Food and the Health and Safety Executive

UNITED STATES

REGULATIONS ON NUCLEAR TRADE

New requirements by the United States Nuclear Regulatory Commission (NRC) on the export and import of nuclear equipment and material (1995)

On 21 August 1995 new United States Nuclear Regulatory Commission (NRC) requirements came into force regarding export and import of nuclear equipment and material. The new requirements, established by amendment to existing rules codified at 10 CFR Part 110, mandate specific licensing of radioactive waste coming into or leaving the United States. Before 21 August, only designated radioactive materials of national security significance needed to have specific export or import licences. Under the then applicable NRC rules which granted a so-called general licence, no NRC approval nor any notification to NRC was needed in order to move most radioactive materials, including radioactive waste, in or out of the country.

NRC issued its amended radioactive waste export and import rules to bring the policies of the United States into line with the guidelines of the IAEA Code of Practice on the International Transboundary Movement of Radioactive Waste. The IAEA adopted the Code of Practice in September 1990 with strong United States support. The Code is an effort to avoid any possible harm from improper transfers and disposal of radioactive waste by setting forth principles to guide countries in developing and harmonizing policies and laws aimed at ensuring the safe management and disposal of the waste.

Under NRC's new radioactive waste amendments, a potential exporter or importer of radioactive waste must apply to NRC for a specific licence and obtain NRC's express approval before the waste is shipped into or out of the US. The application must provide certain specified information to the NRC, for example, on the volume, classification, and physical characteristics of the waste, and its routing.

A few types of shipments are excluded from this specific licensing requirement. These are:

- radioactive material used in sealed source being sent to a qualified manufacturer authorized to receive and possess them
- radioactive material that is a contaminant on equipment used in nuclear facilities, if the equipment is being shipped for use in another nuclear facility
- return of military and other US Government radioactive waste to the US when destined for a Government facility authorized to possess the waste and
- radioactive waste generated in support of US Government waste research and development testing programmes under international arrangements

For the most part, the licensing requirements for these types of shipments will continue to depend on the specific radioactive materials involved rather than their status as radioactive waste.

The new amendments also created a new category termed incidental radioactive material, which is defined as radioactive material that is contained in or a contaminant of any non-hazardous, non-radioactive material that is exported or imported for recycling or resource recovery. Unless the radioactive material in incidental radioactive material is otherwise subject to specific licensing controls imposed by NRC's export/import regulations applicable to non-waste materials, the export and import of incidental radioactive material continues to be covered by general licensing, and NRC approval is not required for the shipment to take place. However, an exporter of incidental radioactive material must file information regarding the shipment similar to that required in applying for a specific licence for export of radioactive waste if the total weight of the shipment containing

the incidental radioactive material exceeds 100 kilograms. This information requirement is intended to provide the NRC with a means to monitor export of the covered shipments and to ensure that the radioactive contaminant will not in fact be treated as waste.

Another significant change in the new amendments from previous NRC export/import regulations involves the host government's consent as a specific licensing criterion to be applied in consideration of individual cases of import and export of radioactive waste. In addition to existing specific licensing criteria applicable to import of radioactive material generally, the new criterion for waste requires that an appropriate facility agrees to accept the waste for management or disposal. A facility will not be found to be appropriate if the State of the United States in which the facility is located objects to that facility's accepting the waste. In the case of exports of radioactive waste, a new criterion permits export only where the receiving country both consents to receipt of the waste and finds that it has the administrative and technical capacity and regulatory structure to manage and dispose of the waste.

INTERNATIONAL REGULATORY ACTIVITIES

OECD NUCLEAR ENERGY AGENCY

APPOINTMENT OF THE JUDGES OF THE EUROPEAN NUCLEAR ENERGY TRIBUNAL

On 27 June 1995, the OECD Council adopted a Resolution appointing the judges of the European Nuclear Energy Tribunal

The Tribunal was set up in 1960 in accordance with the Convention on the Establishment of a Security Control in the Field of Nuclear Energy of 20 December 1957. The Tribunal is today empowered to make decisions on any disputes concerning the interpretation or implementation of the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy and the 1963 Brussels Convention, Supplementary to the Paris Convention (see Nuclear Law Bulletin Nos 11, 22, 33 and 46)

The Tribunal is made up of seven independent judges appointed by the OECD Council for a period of five years. Since 1983, the judges have been renewed on the basis of a rotation system of the countries Parties to the Convention on the Establishment of a Security Control. Accordingly, the judges for this new term are the following:

- Mr Alfonso ARIAS (Spain)
- Mr Ian BROWNLIE (United Kingdom)
- Mr Jean-François EGLI (Switzerland)
- Mrs Maria Manuela FLORES FERREIRA (Portugal)
- Mr Fernand HESS (Luxembourg)
- Mr Giovanni PALEOLOGO (Italy)
- Mrs Ann-Cristine ZACHRISSON (Sweden)

The inaugural meeting of the Tribunal will take place early in 1996 at OECD Headquarters in Paris

TRAINING SEMINAR ON THE REGULATION OF NUCLEAR SAFETY

The NEA organised in the Czech Republic from 28 August to 1 September 1995, its third advanced training seminar on nuclear law for jurists in Central and Eastern Europe, including the Community of Independent States

This new Seminar follows the Leiden Seminar (1993) more general in nature (see Nuclear Law Bulletin No 52) and the Bratislava Seminar (1994) on nuclear third party liability questions (see Nuclear Law Bulletin No 54). The 1995 Seminar focused on the regulation of nuclear safety

As usual, the Seminar was co-sponsored by the International Atomic Energy Agency and the European Commission. The lectures were given by lecturers from the international organisations involved as well as by representatives of national authorities from several NEA Member countries (Finland, Germany, United Kingdom, United States). WANO also reported on its experience in co-operating with Eastern Europe

The Seminar which was supported by the Czech authorities with particular assistance from the State Office for Nuclear Safety brought together some 55 participants from fourteen Central and Eastern European countries

Following an overview of the activities of the different international organisations involved in the nuclear field the following questions were dealt with

- international co-operation in the aftermath of the Chernobyl accident (analysis of the 1986 Conventions on Early Notification of a Nuclear Accident and Assistance in Case of a Nuclear Accident or Radiological Emergency)
- emergency plans in case of a radiological risk (comparative study of the nuclear legislation in different OECD countries and nuclear emergency exercises organised by NEA)
- 1994 Nuclear Safety Convention (report on the Convention's basic principles analysis of its peer review mechanism and the measures to be taken by Contracting Parties at national level)
- 1980 Convention on the Physical Protection of Nuclear Material and the measures adopted by the IAEA to prevent illicit trafficking in such material

One session was also devoted to national experience in both the Central and Eastern European countries and certain NEA countries

Participants were therefore able to benefit from as comprehensive a view as possible of the judicial activities carried out at international level to enhance nuclear safety in Eastern Europe and were also provided with detailed information on the legislation on nuclear safety in several Western countries

INTERNATIONAL ATOMIC ENERGY AGENCY

IAEA GENERAL CONFERENCE

The thirty-ninth session of the IAEA General Conference held in Vienna from 18 to 22 September 1995 brought together delegations from 103 countries and representatives of several international organisations. In reviewing the Agency's programmes and plans, the Director General of the IAEA highlighted developments in a number of specific areas within the Agency's competence. A series of resolutions on the following questions were adopted at the Conference

Safeguards in the Democratic Peoples Republic of Korea (DPRK) – the resolution calls upon the DPRK to comply fully with the Safeguards Agreement concluded with the IAEA and more specifically to take all the steps the Agency may deem necessary to preserve all information relevant to verifying the accuracy and completeness of the DPRK's report of the inventory of nuclear material subject to safeguards

Nuclear inspections in Iraq – this resolution condemns Iraq for having since 1991 withheld from the Agency information about its nuclear weapon programme in violation of its obligations under the United Nations Security Council resolutions and it demands that Iraq hand over to the Agency any nuclear-weapon related equipment material or information

Nuclear testing – in this resolution the General Conference expresses its concern at the resumption of nuclear testing and calls upon those States which have active nuclear testing programmes to desist from testing until a Comprehensive Nuclear Test Ban Treaty enters into force. The resolution stated that it was expected that the negotiations on the Treaty would be completed and the Treaty signed in 1996.

Application of Safeguards in the Middle East – the purpose of this resolution is to continue consultations with the States of the Middle East to facilitate the early application of full-scope safeguards to all nuclear activities in the region so as to establish a nuclear-weapon-free zone.

Illicit trafficking in nuclear materials – the resolution welcomes the measures taken by the IAEA to prevent such illicit trafficking and invites the Agency to continue working to this effect in accordance with the conclusions of its Board of Governors.

African nuclear-weapon-free zone – noting the adoption in June 1995 of the text of such a Treaty, the resolution requests the Agency to continue to assist the African States to this effect.

Nuclear safety – the resolution notes that 61 States have signed the Convention and 12 have deposited their instruments of ratification, acceptance or approval of the Convention. All Member States are invited to become parties to the Convention so that it may enter into force as soon as possible.

SAFETY FUNDAMENTALS AND SAFETY STANDARDS FOR RADIOACTIVE WASTE MANAGEMENT

At its meeting on 27-30 March 1995, the IAEA Board of Governors approved publication of the 'Safety Fundamentals – the Principles of Radioactive Waste Management' (Safety Series No 111-F). The Safety Fundamentals category is the leading publication in the IAEA's Safety Series structure.

Safety Series No 111-F will be followed by six other documents in the Safety Standards, Safety Guides and Safety Practices categories. The "Safety Standard - Establishing a National System for Radioactive Waste Management" was adopted by the Board at its meeting in March 1995 (Safety Series No 111-S-1). Three other documents entitled 'Pre-Disposal Management of Radioactive Waste', 'Near-Surface Disposal of Radioactive Waste' and 'Decommissioning of Nuclear Facilities' are in preparation and will soon be submitted to the Board of Governors for approval.

Safety Fundamentals No 111-F lay down nine basic principles to be taken into account in the management of radioactive waste. They are the following:

Protection of human health (Principle 1) – Radioactive waste shall be managed in such a way as to secure an acceptable level of protection for human health.

Protection of the environment (Principle 2) – Radioactive waste shall be managed in such a way as to provide an acceptable level of protection of the environment.

It should be noted that to date the Board of Governors has approved:

- Safety Fundamentals - Nuclear Installations June 1993
- Safety Fundamentals - Radioactive Waste Management March 1995
- Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources May 1995 (jointly published with other international organisations see Nuclear Law Bulletin Nos 53 and 55)

Protection beyond national borders (Principle 3) – Radioactive waste shall be managed in such a way as to assure that possible effects on human health and the environment beyond national borders will be taken into account

Protection of future generations (Principle 4) – Radioactive waste shall be managed in such a way that *predicted impacts on the health of future generations will not be greater than relevant levels of impact that are acceptable today*

Burdens on future generations (Principle 5) – Radioactive waste shall be managed in such a way that will not impose undue burdens on future generations

National legal framework (Principle 6) – Radioactive waste shall be managed within an appropriate national legal framework including clear allocation of responsibilities and provision for independent regulatory functions

Control of radioactive waste generation (Principle 7) – Generation of radioactive waste shall be kept to the minimum practicable

Radioactive waste generation and management interdependencies (Principle 8) – Interdependencies among all steps in radioactive waste generation and management shall be appropriately taken into account

Safety of facilities (Principle 9) – The safety of facilities for radioactive waste management shall be appropriately assured during their lifetime

The Safety Standards entitled *Establishing a National System for Radioactive Waste Management* specify the key elements of a national framework for radioactive waste management and detail the responsibilities of Member states, regulatory bodies and nuclear operators. They also describe other important features such as processes for licensing and safety and environmental impact assessment of radioactive waste management.

The Safety Fundamentals (Safety Series No. 111-F) and Safety Standard (Safety Series No. 111-S.1) are basic working documents for the Group of legal and technical experts responsible for elaborating the proposed international convention on the safe management of radioactive waste. The first meeting of the Group, which took place in Vienna from 3 to 7 July 1995, focused mainly on consideration of both documents in the context of the Convention.

AGREEMENTS

BILATERAL AGREEMENTS

Belarus/Poland

AGREEMENT ON EARLY NOTIFICATION AND INFORMATION EXCHANGE ON NUCLEAR SAFETY (1994)

According to this Agreement signed in Minsk on 26 October 1994, both Parties will co-operate in case of an accident arising from a nuclear installation or other form of nuclear activity within the meaning of the 1986 Convention on Early Notification of a Nuclear Accident. The Agreement also provides for close co-operation between the Parties to further enhance nuclear safety.

In case of an accident involving a nuclear installation or activity which leads or could lead to a release of radioactive materials likely to have a transboundary effect, the State where the accident has occurred must immediately notify the other Party of all the characteristics of the accident.

The obligation to supply the other Party with information is not limited to the case of a nuclear accident alone, but also includes notification of any significant change in a nuclear installation, any illicit activity related to nuclear materials, radioactive sources or waste.

The Parties to the Agreement undertake to encourage and facilitate the development of scientific and technical co-operation in the field of nuclear safety and radiation protection, including the monitoring of radioactive releases.

At present, the Agreement has not yet formally entered into force, but both Parties have agreed to apply it without delay.

Brazil/Russian Federation

AGREEMENT ON CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY (1994)

The Governments of Brazil and of the Russian Federation signed this Agreement on 15 September 1994. It will enter into force thirty days following an exchange of notifications or when the second notification has been received, confirming that the Parties have completed the internal procedures for its entry into force.

The purpose of the Agreement is to encourage co-operation in the following fields:

- ~ research and applications in the peaceful uses of nuclear energy

- controlled thermonuclear fusion
- scientific research and development, research and power reactor engineering
- programming construction and handling of research and power reactors,
- industrial production of nuclear components and materials used in research and power reactors and in the nuclear fuel cycle
- radioelement production and applications,
- radiation protection nuclear safety and study of the radiological consequences of the use of nuclear energy
- provision of services in the above-mentioned areas

Co-operation under this Agreement covers the use of nuclear energy solely for peaceful purposes

Bulgaria/Russian Federation

AGREEMENTS ON CO-OPERATION IN THE FIELD OF NUCLEAR ENERGY (1995)

Bulgaria and the Russian Federation concluded two Agreements on co-operation in the nuclear field

The first Agreement generally covers the peaceful uses of atomic energy and was signed in Sofia on 19 May 1995. It provides a legal framework for co-operation in that field. Such co-operation will be carried out by *organising joint scientific projects, mutual consultations, information exchange etc.* on the basis of contracts concluded in accordance with the legislation of each country.

The nuclear materials and equipment transferred under this Agreement will be used only for peaceful purposes, will be placed under IAEA safeguards and covered by physical protection measures at levels at least equivalent to those of the IAEA.

The second Agreement concerns co-operation in the field of nuclear power (energy) production. The Agreement was also signed in May 1995. Co-operation will cover

- studies on nuclear energy
- site selection
- operation and decommissioning of nuclear installations
- transport and storage of nuclear fuels
- monitoring of nuclear safety and radiation protection
- accounting and control of nuclear materials etc.

Canada/Mexico

AGREEMENT ON CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY (1994)

This Agreement was concluded by the Governments of Canada and Mexico on 16 November 1994. The Decree promulgating the Agreement was published in the Mexican Official Gazette (*Diario Oficial*) of 9 May 1995.

Co-operation will cover activities related to the use, development and applications of nuclear energy including:

- exchange of nuclear information and technology
- supply of nuclear materials and equipment
- execution of projects in the fields of agriculture, industry, medicine, electricity production which involve radioactive substances,
- provision of technical assistance and services and exchanges of specialists, etc.

The Parties will facilitate co-operation between physical and legal entities under their jurisdiction having concluded commercial contracts for exporting or importing nuclear materials, equipment or technology. Before a transfer takes place, the exporting country must notify in writing the object of the transfer to the importing country.

Since the two countries are Parties to the Treaty on the Non-Proliferation of Nuclear Weapons and have signed Safeguards Agreements with the IAEA, the materials covered by this Agreement cannot leave the territories of the Contracting Parties, be enriched by more than 20 per cent in uranium 235, or be reprocessed without the prior consent of the Parties. The materials, equipment and technology involved may, in no case, be used to manufacture nuclear weapons or explosive devices.

The Parties provide for regular consultations to ensure the effective implementation of the obligations under the Agreement and, at domestic level, the competent national authorities must issue administrative orders to facilitate its application.

The Agreement will remain in force for thirty years and for successive periods of ten years, unless otherwise notified in advance by either Party.

Czech Republic/Russian Federation

AGREEMENT ON CO-OPERATION IN THE FIELD OF NUCLEAR ENERGY (1994)

The above Agreement between the Czech Republic and the Russian Federation was signed on 4 December 1994. It entered into force on 4 April 1995 for an initial period of ten years and may be extended for additional periods of two years unless otherwise decided by either Party.

The Agreement provides for co-operation related to the use, development and application of nuclear energy for peaceful purposes. It may include *inter alia*

- the design, construction, commissioning and operation of nuclear power plants or other nuclear facilities
- production and supply of nuclear fuel for nuclear power plants
- repair and maintenance work at nuclear power plants
- activities to extend the operating life of nuclear power plants
- technical assistance during backfitting and upgrading of nuclear power plants
- exchange of information

The Agreement also provides for improvement of co-operation in the regulation of nuclear safety and radiation protection, accounting and supervision of nuclear materials and installations.

It is provided that nuclear material, equipment and technology subject to the Agreement may not be used to manufacture or otherwise acquire nuclear weapons or other explosive devices. This commitment will be verified in accordance with procedures of the IAEA Safeguards System and the Treaty on the Non-Proliferation of Nuclear Weapons.

Democratic Peoples Republic of Korea/United States

ARRANGEMENTS TO IMPLEMENT THE 1994 AGREED FRAMEWORK (1995)

In an Agreed Framework concluded on 21 October 1994, the United States and the Democratic Peoples Republic of Korea (DPRK) undertook to negotiate an overall resolution of the nuclear issue in the Korean Peninsula to assure peace and safety in that area (the text of the Agreed Framework is reproduced in Nuclear Law Bulletin No. 54). The purpose of this agreement is to replace the DPRK's graphite-moderated reactors and related facilities with light water reactor power plants.

The DPRK 5 MW reactor, fuel fabrication plant and reprocessing facility are now placed under IAEA monitoring. Construction of two larger reactors has ceased and spent fuel from the 5 MW reactor is in a storage pond awaiting shipment out of the country.

In accordance with Article 1(1) of the Agreed Framework, which provides that the US will organise an international consortium to finance and supply the light water reactor project to be provided to the DPRK, on 9 March 1995, the United States, the Republic of Korea and Japan established the Korean Peninsula Energy Development Organization (KEDO). KEDO is a multinational consortium which will finance and build two 1000 MWe light water reactors in the DPRK to supply electric power.

In accordance with Article 1(4) of the Agreed Framework, which provides for two expert talks between US and DPRK experts, both countries met in May and June 1995 in Kuala Lumpur with a view to implementing the provisions of the Agreed Framework of 1994. The talks confirmed that KEDO will finance and supply the reactors and that the US will serve as the principal point of contact with the DPRK for the project. KEDO will

also conduct a site survey to identify requirements for construction and operation of the reactors. Furthermore during the talks progress was made regarding verification that heavy oil supplied to the DPRK under the Agreed Framework will not be diverted. Experts agreed on a schedule and quantities of shipments of the heavy oil.

Subsequently the KEDO Administrative Board approved a resolution stating that the light-water reactor project would consist of two reactors of the standard nuclear power plant model of the Republic of Korea. This latter country will provide the main funding for the project while Japan will also make an important financial contribution.

The Agreed Framework aims to assure a wider implementation of the nuclear non-proliferation regime and greater security and stability in the Asian South Pacific region.

Lithuania/Poland

AGREEMENT ON EARLY NOTIFICATION AND CO-OPERATION ON NUCLEAR SAFETY AND RADIATION PROTECTION (1995)

This Agreement signed in Warsaw on 2 June 1995, is not yet in force, but the Parties undertook to apply it upon its signature. The purpose of the Agreement is to reduce the risks and consequences of accidents referred to in Articles 1 and 3 of the 1986 Convention on Early Notification of a Nuclear Accident as well as to provide a legal framework for wide co-operation in the field of nuclear safety and radiation protection.

In case of an accident involving a nuclear installation or activity in a State Party which could produce an effect in the territory of the other State Party both countries have undertaken to supply all the information required to reduce the radiological consequences of such an accident.

This exchange of information is also provided for even without an accident regarding everything that concerns the operation of nuclear installations whether operational or decommissioned.

Finally this Agreement initiates scientific and technical co-operation to promote and develop nuclear safety and radiation protection.

Two competent authorities have been designated to implement the provisions of this Agreement: the Ministry of Energy for Lithuania, and the National Atomic Energy Agency for Poland.

Poland/Russian Federation

AGREEMENT ON EARLY NOTIFICATION AND ON CO-OPERATION ON NUCLEAR SAFETY AND RADIATION PROTECTION (1995)

This Agreement which was concluded on 18 February 1995 entered into force on 18 May 1995. The Parties have undertaken to supply all necessary information in case of a nuclear accident. In addition to this exchange of information in case of such an accident, the Agreement provides more generally for both Parties exchanging information in the field of the peaceful uses of nuclear energy.

Furthermore, if one Party registers an increase in the levels of radioactivity which is not caused by nuclear activities in its territory it informs the other Party accordingly

Finally the Parties have agreed to facilitate their scientific and technical co-operation on nuclear safety by exchanging general information on their nuclear activities at least once a year

United States/Euratom

THE NEW AGREEMENT FOR CO-OPERATION IN THE PEACEFUL USES OF NUCLEAR ENERGY BETWEEN THE UNITED STATES AND EURATOM (1995)

The co-operation between Euratom and the United States in the peaceful uses of nuclear energy dates back to the late 1950s. It was consolidated in a bilateral agreement that entered into force on 25 July 1960 and will expire on 31 December 1995.

The co-operation developed over the last 35 years under the existing agreement is valued as highly positive by both parties. For the European Union it provided the framework to import from the United States essential materials, equipment and technology that made it possible for the European nuclear industry to reach a high level of maturity. For the United States, peaceful nuclear co-operation with Euratom provided a major and reliable nuclear trading partner with which there was, from the beginning, a large degree of agreement on nuclear non-proliferation issues which opened the way to the full commitment to the multilateral nuclear non-proliferation regime that both the European Union (EU) and the United States (US) share today.

After three years of sometimes difficult negotiations between the government of the USA and the European Commission, the two parties reached an ad referendum agreement in May 1995 on a draft for a new Agreement for co-operation in the peaceful uses of nuclear energy. The European Commission adopted this proposal for a draft Agreement on 10 May 1995 (document n COM (95) 171 final of 10 May 1995) and submitted it to the Council of Ministers of the European Union.

During the month of June and July, intensive discussions took place within the competent working groups in Brussels (the Council Atomic Questions Group and the Common Foreign and Security Policy Nuclear Non-Proliferation Group) following which some slight modifications were made in agreement with the American administration to the text of the draft Agreement. Furthermore, the Commission and the Council clarified certain issues through no less than 15 Commission and Council statements in the Council's minutes.

It is now up to the US Congress to adopt the Agreement. The President of the United States will submit it to the Congress after he has received the necessary advice from the relevant government agencies, as required by the Nuclear Non-Proliferation Act of 1978 (NNPA). These agencies are notably the Arms Control and Disarmament Agency and the Nuclear Regulatory Commission.

The Agreement will then be laid before Congress during 90 days of continuous session. If during that period Congress has not adopted a joint resolution disapproving the Agreement, it is deemed to be adopted at the end of the 90 day period.

* This note was kindly prepared by Mr R.C. Lennartz, Administrator, Directorate General for Energy, European Commission.

As an important energy source for the European Union (about 35% of all electricity is nuclear produced), it was necessary to ensure that industrial and trade aspects relating in particular to security of nuclear supply and competitiveness were secured by the new Agreement. Although the EU is no longer dependent on the US in the nuclear sector, the Agreement provides a secure and favourable basis for considerable co-operation and trade between the nuclear industries of the two sides as well as a number of third countries, and provides a durable framework for this trade to expand in the future according to the commercial choices and needs of the EU nuclear industry. The primary objective of the negotiations was to agree on a legal framework which would guarantee to the European nuclear industry, whenever it operates with US obligated materials, security of supply, stability and long-term predictability. The new Agreement, which will remain in force for at least 30 years followed possibly by subsequent 5-year roll-over periods, guarantees the following framework as long as it remains in force:

Co-operation covers areas such as

- supply of non-nuclear material, nuclear material and equipment and provision of nuclear fuel cycle services
- facilitation of exchange and co-operation activities at an industrial or commercial scale between persons and undertakings
- nuclear fission research and development
- nuclear safety matters,
- exchange of information on major international questions related to nuclear energy such as international nuclear safeguards
- thermonuclear fusion

Any non-sensitive nuclear activities, as well as enrichment of uranium up to 20%, irradiation of fissile materials and post-irradiation involving chemical dissolution or separation of irradiated nuclear material will be freely and unconditionally allowed.

Retransfers to third countries will be authorised on a long-term basis according to procedures set out in the Agreement.

Storage of sensitive fissile material (transferred pursuant to the Agreement) will be possible in any facility that meets the usual physical protection levels.

Reprocessing and alteration in form or content of sensitive fissile materials will take place under a generic programmatic consent in facilities forming part of the list of nuclear facilities (peaceful programme) delineated by each party. This generic consent will be valid in practice for the entire life of the Agreement, unless a serious situation arises such as e.g. detonation of a nuclear explosive device by a non-nuclear weapon state member of the Community or by a nuclear weapon state using any item subject to the Agreement or violation or termination of the Treaty on the non-proliferation of nuclear weapons or the Nuclear Suppliers Guidelines.

The European Union, its Member States and the United States are fully committed to non-proliferation which forms a key basis of their co-operation. Any form of co-operation under the new Agreement is for peaceful use only. It is provided that all material is subject to international instruments dealing with their physical protection and security. The new Agreement ensures that internationally accepted levels of non-proliferation (based upon INFCIRC 153) and physical protection (INFCIRC 254 and 225) apply indefinitely to all material.

An Administrative Arrangement will be established between the appropriate authorities of the Parties dealing with the practical implementation of the Agreement.

The Agreement foresees the termination of the bilateral nuclear co-operation Agreements between the United States and Austria Spain Portugal Sweden and Finland

MULTILATERAL AGREEMENTS

CONVENTION ON NUCLEAR SAFETY

The Convention on Nuclear safety was adopted on 17 June 1994 by a Diplomatic Conference convened by the International Atomic Energy Agency and was opened for signature on 20 September 1994. At present thirteen countries are Parties to the Convention. According to Article 31 the Convention will enter into force on the ninetieth day after the date of deposit of the twenty-second instrument of ratification acceptance or approval including the instruments of seventeen States having each at least one nuclear installation which has achieved criticality in a reactor core.

The primary objective of the Convention is to achieve and maintain a high level of nuclear safety worldwide. Therefore it provides for a mechanism aimed at ensuring the implementation of the Convention. This mechanism will take the form of meetings of the Contracting Parties held periodically which will examine reports submitted in advance by the Parties. The reports will explain how each of the obligations under the Convention have been implemented at a national level.

The table below gives the status of signatures ratifications approvals or accessions as of November 1995.

Convention on Nuclear Safety

List of signatures, ratification, acceptance, approval or accession

| State | Date of Signature | Date of Deposit of Instrument |
|--------------|--------------------------|--------------------------------------|
| Algeria | 20 September 1994 | |
| Argentina* | 20 October 1994 | |
| Armenia | 22 September 1994 | |
| Australia | 20 September 1994 | |
| Austria | 20 September 1994 | |
| Bangladesh | 21 September 1995 | 21 September 1995 (accepted) |
| Belgium* | 20 September 1994 | |
| Brazil* | 20 September 1994 | |
| Bulgaria* | 20 September 1994 | 8 November 1995 (ratified) |

| State | Date of signature | Date of Deposit of instrument |
|---------------------|---|--------------------------------------|
| Canada* | 20 September 1994 | |
| Chile | 20 September 1994 | |
| China* | 20 September 1994 | |
| Croatia | 10 April 1995 | |
| Cuba | 20 September 1994 | |
| Czech Republic* | 20 September 1994 | 18 September 1995 (approved) |
| Denmark | 20 September 1994 | |
| Egypt | 20 September 1994 | |
| Finland* | 20 September 1994 | |
| France* | 20 September 1994 | 13 September 1995 (approved) |
| Germany* | 20 September 1994 and 5 October 1994 | |
| Ghana | 6 July 1995 | |
| Greece | 1 November 1994 | |
| Hungary* | 20 September 1994 | |
| Iceland | 21 September 1995 | |
| India* | 20 September 1994 (*) | |
| Indonesia | 20 September 1994 | |
| Ireland | 20 September 1994 | |
| Israel | 22 September 1994 | |
| Italy | 27 September 1994 | |
| Japan* | 20 September 1994 | 12 May 1995 (accepted) |
| Jordan | 6 December 1994 | |
| Republic of Korea* | 20 September 1994 | 19 September 1995 (ratified) |
| Lebanon | 7 March 1995 | |
| Lithuania* | 22 March 1995 | |
| Luxembourg | 20 September 1994 | |
| Mali | 22 May 1995 | |
| Mexico* | 9 November 1994 | |
| Morocco | 1 December 1994 | |
| Netherlands* | 20 September 1994 | |
| Nicaragua | 23 September 1994 | |
| Nigeria | 21 September 1994 | |
| Norway | 21 September 1994 | 29 September 1994 (ratified) |
| Pakistan* | 20 September 1994 | |
| Peru | 22 September 1994 | |
| Philippines | 14 October 1994 | |
| Poland | 20 September 1994 | 14 June 1995 (ratified) |
| Portugal | 3 October 1994 | |
| Romania | 20 September 1994 | 1 June 1995 (ratified) |
| Russian Federation* | 20 September 1994 | |

| State | Date of signature | Date of Deposit of instrument |
|------------------|--------------------------|--------------------------------------|
| Slovak Republic* | 20 September 1994 | 7 March 1995 (ratified) |
| Slovenia* | 20 September 1994 | |
| South Africa* | 20 September 1994 | |
| Spain* | 15 November 1994 | 4 July 1995 (ratified) |
| Sudan | 20 September 1994 | |
| Sweden* | 20 September 1994 | 11 September 1995 (ratified) |
| Switzerland* | 31 October 1995 | |
| Syria | 23 September 1994 | |
| Tunisia | 20 September 1994 | |
| Turkey | 20 September 1994 | 8 March 1995 (ratified) |
| Ukraine* | 20 September 1994 | |
| United Kingdom* | 20 September 1994 | |
| United States* | 20 September 1994 | |

- * Indicates that the State has at least one nuclear installation which has achieved criticality in a reactor core
 (*) Indicates reservation/declaration was deposited upon signature

AFRICAN REGIONAL CO-OPERATIVE AGREEMENT FOR RESEARCH, DEVELOPMENT AND TRAINING RELATED TO NUCLEAR SCIENCE AND TECHNOLOGY (AFRA)

This Agreement is an inter-governmental agreement established under the auspices of the IAEA with the dual objectives of promoting and co-ordinating research development and training activities in the fields of nuclear science and technology. The text of the Agreement was endorsed by the IAEA Board of Governors on 21 February 1990 and the Agreement itself came into force on 4 April 1990. The Agreement was contemplated to remain in force for a five-year term followed by one or more possible five-year extensions. It is currently in force until the year 2000.

Pursuant to Article XIII any Member State of the IAEA in the African region may become a Party to this Agreement and the following 21 countries have done so: Algeria, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Ghana, Kenya, Libya, Madagascar, Mauritius, Morocco, Namibia, Niger, Nigeria, Sierra Leone, South Africa, Sudan, Tanzania, Tunisia, Zaire, Zambia.

Any project may be implemented under this Agreement if three Participating Governments indicate their intention to co-operate. For all projects a Participating Government undertakes to make available a senior official to act as national co-ordinator. It also provides its scientific and technical personnel and facilities and appropriate financial contributions to ensure the effective implementation of the project. The IAEA assists in the structuring and implementation of these co-operative projects by providing administrative, scientific and

technical support, and by providing financial assistance either directly or through contributions made by non-Member countries, regional or other international organisations

Activities carried out under this Agreement include but are not limited to exchange of technical information training programmes and workshops, shared use of facilities and equipment, joint feasibility studies joint development of technologies and quality assurance programmes The fields of application of these activities are quite broad, covering food production, medical and biological uses of radiation and radionuclides, industrial applications such as radiation processing for product sterilisation radiation protection and safety particularly with respect to radioactive waste management, and the development and maintenance of nuclear instrumentation *

This Agreement has proved to be a valuable tool for many African countries who wish to significantly advance their knowledge and capabilities in nuclear science and technology without having to bear the entire financial burden of such development on their own It has also encouraged a sense of regional co-operation that has benefited both those nations which are more advanced as well as those who are still in need of substantial levels of assistance

Argentina/Brazil/ABACC/IAEA

ENTRY INTO FORCE OF THE 1991 QUADRIPARTITE AGREEMENT ON IAEA FULL-SCOPE SAFEGUARDS (1995)

This Agreement signed in Guadalajara on 13 December 1991 entered into force in March 1995, following a notification to the International Atomic Energy Agency by the States Parties to the Agreement and the Argentine/Brazilian Agency for Accounting and Control of Nuclear Materials (ABACC) The notification informs the IAEA that the Parties had now fulfilled at national level the conditions of entry into force of the Agreement The Quadripartite Agreement was concluded in furtherance of the Agreement concluded by Argentina and Brazil on 18 July 1991 on the use of nuclear energy solely for peaceful purposes (see Nuclear Law Bulletin Nos 48 and 49)

The purpose of the Quadripartite Agreement is to ensure the application of the IAEA full-scope safeguards to all nuclear materials under the jurisdiction or control of the Parties to the Agreement to avoid diversion of such materials to manufacture nuclear weapons or other nuclear explosive devices

* For additional information on the activities being carried out under AFRA see Nuclear co-operation in Africa Developing expertise and resources by Boussaha A and Maksoudi M IAEA Bulletin Vol 37 No 1 1995 Vienna Austria

DECISIONS AND RESOLUTION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE NPT (1995)

At its seventeenth plenary meeting on 11 May 1995 the Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons adopted three decisions proposed by the President

- a decision entitled *Strengthening the review process for the Treaty* [NPT/CONF 1995/L 4]
- a decision entitled *Principles and objectives for nuclear non-proliferation and disarmament* [NPT/CONF 1995/L 5]
- a decision entitled *Decision on the extension of the Treaty on the Non-Proliferation of Nuclear Weapons* [NPT/CONF 1995/L 6]

At the same meeting the Conference also adopted a Resolution on the Middle East [NPT/CONF 1995/L 8]. This resolution was sponsored by the Russian Federation, the United Kingdom, Northern Ireland and the United States.

The text of the three decisions and the resolution on the Middle East are reproduced below.

Decision 1 Strengthening The Review Process for the Treaty

1 The Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons examined the implementation of Article VIII paragraph 3 of the Treaty and agreed to strengthen the review process for the operation of the Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realized.

2 The States party to the Treaty participating in the Conference decided in accordance with Article VIII paragraph 3 that Review Conferences should continue to be held every five years and that accordingly the next Review Conference should be held in the year 2000.

3 The Conference decided that beginning in 1997 the Preparatory Committee should hold normally for a duration of 10 working days a meeting in each of the three years prior to the Review Conference. If necessary a fourth preparatory meeting may be held in the year of the Conference.

4 The purpose of the Preparatory Committee meetings would be to consider principles, objectives and ways in order to promote the full implementation of the Treaty as well as its universality and to make recommendations thereon to the Review Conference. These include those identified in the decision on principles and objectives for nuclear non-proliferation and disarmament adopted on 11 May 1995. These meetings should also make the procedural preparations for the next Review Conference.

5 The Conference also concluded that the present structure of three Main Committees should continue and the question of an overlap of issues being discussed in more than one Committee should be resolved in the General Committee which would co-ordinate the work of the Committees so that the substantive responsibility for the preparation of the report with respect to each specific issue is undertaken in only one Committee

6 It was also agreed that subsidiary bodies could be established within the respective Main Committees for specific issues relevant to the Treaty, so as to provide for a focused consideration of such issues. The establishment of such subsidiary bodies would be recommended by the Preparatory Committee for each Review Conference in relation to the specific objectives of the Review Conference

7 The Conference further agreed that Review Conferences should look forward as well as back. They should evaluate the results of the period they are reviewing including the implementation of undertakings of the States parties under the Treaty, and identify the areas in which, and the means through which further progress should be sought in the future. Review Conferences should also address specifically what might be done to strengthen the implementation of the Treaty and to achieve its universality

Decision 2: Principles and Objectives for Nuclear Non-Proliferation and Disarmament

The Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons,

Reaffirming the Preamble and Articles of the Treaty on the Non-Proliferation of Nuclear Weapons

Welcoming the end of the cold war, the ensuing easing of international tension and the strengthening of trust between States

Desiring a set of principles and objectives in accordance with which nuclear non-proliferation, nuclear disarmament and international co-operation in the peaceful uses of nuclear energy should be vigorously pursued and progress, achievements and shortcomings evaluated periodically within the review process provided for in Article VIII paragraph 3 of the Treaty, the enhancement and strengthening of which is welcomed

Reiterating the ultimate goals of the complete elimination of nuclear weapons and a treaty on general and complete disarmament under strict and effective international control

The Conference affirms the need to continue to move with determination towards the full realization and effective implementation of the provisions of the Treaty, and accordingly adopts the following principles and objectives

Universality

1 Universal adherence to the Treaty on the Non-Proliferation of Nuclear Weapons is an urgent priority. All States not yet party to the Treaty are called upon to accede to the Treaty at the earliest date, particularly those States that operate unsafeguarded nuclear facilities. Every effort should be made by all States parties to achieve this objective

Non-Proliferation

2 The proliferation of nuclear weapons would seriously increase the danger of nuclear war. The Treaty on the Non-Proliferation of Nuclear Weapons has a vital role to play in preventing the proliferation of nuclear weapons. Every effort should be made to implement the Treaty in all its aspects to prevent the proliferation of nuclear weapons and other nuclear explosive devices, without hampering the peaceful uses of nuclear energy by States parties to the Treaty.

Nuclear Disarmament

3 Nuclear disarmament is substantially facilitated by the easing of international tension and the strengthening of trust between States which have prevailed following the end of the cold war. The undertakings with regard to nuclear disarmament as set out in the Treaty on the Non-Proliferation of Nuclear Weapons should thus be fulfilled with determination. In this regard the nuclear-weapon States reaffirm their commitment, as stated in Article VI, to pursue in good faith negotiations on effective measures relating to nuclear disarmament.

4 The achievement of the following measures is important in the full realization and effective implementation of Article VI, including the programme of action as reflected below:

- a) The completion by the Conference on Disarmament of the negotiations on a universal and internationally and effectively verifiable Comprehensive Nuclear-Test-Ban Treaty no later than 1996. Pending the entry into force of a Comprehensive Test-Ban Treaty, the nuclear-weapon States should exercise utmost restraint,
- b) The immediate commencement and early conclusion of negotiations on a non-discriminatory and universally applicable convention banning the production of fissile material for nuclear weapons or other nuclear explosive devices, in accordance with the statement of the Special Co-ordinator of the Conference on Disarmament and the mandate contained therein.
- c) The determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons, and by all States of general and complete disarmament under strict and effective international control.

Nuclear-Weapon-Free Zones

5 The conviction that the establishment of internationally recognized nuclear-weapon-free zones, on the basis of arrangements freely arrived at among the States of the region concerned, enhances global and regional peace and security is reaffirmed.

6 The development of nuclear-weapon-free zones, especially in regions of tension such as in the Middle East, as well as the establishment of zones free of all weapons of mass destruction should be encouraged as a matter of priority, taking into account the specific characteristics of each region. The establishment of additional nuclear-weapon-free zones by the time of the Review Conference in the year 2000 would be welcome.

7 The co-operation of all the nuclear-weapon States and their respect and support for the relevant protocols is necessary for the maximum effectiveness of such nuclear-weapon-free zones and the relevant protocols.

Security Assurances

8 Noting United Nations Security Council resolution 984 (1995) which was adopted unanimously on 11 April 1995, as well as the declarations of the nuclear-weapon States concerning both negative and positive security assurances, further steps should be considered to assure non-nuclear-weapon States party to the Treaty.

against the use or threat of use of nuclear weapons. These steps could take the form of an internationally legally binding instrument.

Safeguards

9 The International Atomic Energy Agency (Agency) is the competent authority responsible to verify and assure in accordance with the statute of the Agency and the Agency's safeguards system, compliance with its safeguards agreements with States parties undertaken in fulfilment of their obligations under Article III, paragraph 1, of the Treaty, with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. Nothing should be done to undermine the authority of the International Atomic Energy Agency in this regard. States parties that have concerns regarding non-compliance with the safeguards agreements of the Treaty by the States parties should direct such concerns along with supporting evidence and information, to the Agency to consider, investigate, draw conclusions and decide on necessary actions in accordance with its mandate.

10 All States parties required by Article III of the Treaty to sign and bring into force comprehensive safeguards agreements and which have not yet done so should do so without delay.

11 International Atomic Energy Agency safeguards should be regularly assessed and evaluated. Decisions adopted by its Board of Governors aimed at further strengthening the effectiveness of Agency safeguards should be supported and implemented and the Agency's capability to detect undeclared nuclear activities should be increased. Also States not party to the Treaty on the Non-Proliferation of Nuclear Weapons should be urged to enter into comprehensive safeguards agreements with the Agency.

12 New supply arrangements for the transfer of source or special fissionable material or equipment or material especially designed or prepared for the processing, use or production of special fissionable material to non-nuclear-weapon States should require, as a necessary precondition, acceptance of the Agency's full-scope safeguards and internationally legally binding commitments not to acquire nuclear weapons or other nuclear explosive devices.

13 Nuclear fissile material transferred from military use to peaceful nuclear activities should, as soon as practicable, be placed under Agency safeguards in the framework of the voluntary safeguards agreements in place with the nuclear-weapon States. Safeguards should be universally applied once the complete elimination of nuclear weapons has been achieved.

Peaceful Uses of Nuclear Energy

14 Particular importance should be attached to ensuring the exercise of the inalienable right of all the parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I, II as well as Article III of the Treaty.

15 Undertakings to facilitate participation in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy should be fully implemented.

16 In all activities designed to promote the peaceful uses of nuclear energy preferential treatment should be given to the non-nuclear-weapon States party to the Treaty taking the needs of developing countries particularly into account.

17 Transparency in nuclear-related export controls should be promoted within the framework of dialogue and co-operation among all interested States party to the Treaty.

18 All States should through rigorous national measures and international co-operation maintain the highest practicable levels of nuclear safety including in waste management and observe standards and guidelines in nuclear materials accounting physical protection and transport and transport of nuclear materials

19 Every effort should be made to ensure that the International Atomic Energy Agency has the financial and human resources necessary in order to meet effectively its responsibilities in the areas of technical cooperation safeguards and nuclear safety The Agency should also be encouraged to intensify its efforts aimed at finding ways and means for funding technical assistance through predictable and assured resources

20 Attacks or threats of attack on nuclear facilities devoted to peaceful purposes jeopardize nuclear safety and raise serious concerns regarding the application of international law on the use of force in such cases which could warrant appropriate action in accordance with the provisions of the Charter of the United Nations

The Conference requests that the President of the Conference bring the present decision the decision on strengthening the review process for the Treaty and the decision on the extension of the Treaty on the Non-Proliferation of Nuclear Weapons to the attention of the heads of State or Government of all States and seek their full co-operation on these documents and in the furtherance of the goals of the Treaty

Decision 3 Extension of the Treaty on the Non-Proliferation of Nuclear Weapons

The Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Having convened in New York from 17 April to 12 May 1995 in accordance with Article VIII paragraph 3 and Article X paragraph 2 of the Treaty on the Non-Proliferation of Nuclear Weapons

Having reviewed the operation of the Treaty and affirming that there is a need for full compliance with the Treaty its extension and its universal adherence which are essential to international peace and security and the attainment of the ultimate goals of the complete elimination of nuclear weapons and a treaty on general and complete disarmament under strict and effective international control

Having reaffirmed Article VIII, paragraph 3 of the Treaty and the need for its continued implementation in a strengthened manner and to this end emphasizing the decision on strengthening the review process for the Treaty and the decision on principle and objectives for nuclear non proliferation and disarmament also adopted by the Conference

Having established that the Conference is quorate in accordance with Article X paragraph 2 of the Treaty

Decides that as a majority exists among States party to the Treaty for its indefinite extension in accordance with its Article X paragraph 2 the Treaty shall continue in force indefinitely

Resolution on the Middle East

The Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons,

Reaffirming the purpose and provisions of the Treaty on the Non-Proliferation of Nuclear Weapons,

Recognizing that pursuant to Article VII of the Treaty, the establishment of nuclear-weapon-free zones contributes to strengthening the international non-proliferation regime,

Recalling that the Security Council in its statement of 31 January 1992, affirmed that the proliferation of nuclear and all other weapons of mass destruction constituted a threat to international peace and security

Recalling also General Assembly resolutions adopted by consensus supporting the establishment of a nuclear-weapon-free zone in the Middle East, the latest of which is resolution 49/71 of 15 December 1994,

Recalling further the relevant resolutions adopted by the General Conference of the International Atomic Energy Agency concerning the application of Agency safeguards in the Middle East, the latest of which is GC (XXXVIII)/RES/21 of 23 September 1994 and noting the danger of nuclear proliferation especially in areas of tension

Bearing in mind Security Council resolution 687 (1991) and in particular paragraph 14 thereof,

Noting Security Council resolution 984 (1995) and paragraph 8 of the decision on principles and objectives for nuclear non-proliferation and disarmament adopted by the Conference on 11 May 1995

Bearing in mind the other decisions adopted by the Conference on 11 May 1995,

1 **Endorses** the aims and objectives of the Middle East peace process and recognizes that efforts in this regard as well as other efforts contribute to *inter alia* a Middle East zone free of nuclear weapons as well as other weapons of mass destruction

2 **Notes with satisfaction** that in its report (NPT/CONF 1995/MC III/1) Main Committee III of the Conference recommended that the Conference call on those remaining States not parties to the Treaty to accede to it thereby accepting an international legally binding commitment not to acquire nuclear weapons or nuclear explosive devices and to accept International Atomic Energy Agency safeguards on all their nuclear activities ,

3 **Notes with concern** the continued existence in the Middle East of unsafeguarded nuclear facilities and reaffirms in this connection the recommendation contained in Section VI paragraph 3 of the report of Main Committee III urging those non-parties to the Treaty on the Non-Proliferation of Nuclear Weapons that operate unsafeguarded nuclear facilities to accept full-scope International Atomic Energy Agency safeguards,

4 **Reaffirms** the importance of the early realization of universal adherence to the Treaty, and calls upon all States of the Middle East that have not yet done so without exception to accede to the Treaty as soon as possible and to place their nuclear facilities under full-scope International Atomic Energy Agency safeguards,

5 **Calls upon** all States in the Middle East to take practical steps in appropriate forums aimed at making progress towards *inter alia* the establishment of an effectively verifiable Middle East zone free of weapons of mass destruction nuclear, chemical and biological, and their delivery systems and to refrain from taking any measures that preclude the achievement of this objective,

6 **Calls upon** all States party to the Treaty on the Non-Proliferation of Nuclear Weapons, and in particular the nuclear-weapon States to extend their co-operation and to exert their utmost efforts with a view to ensuring the early establishment by regional parties of a Middle East zone free of nuclear and all other weapons of mass destruction and their delivery systems

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BRAZIL

Nuclear Inter Jura '93, "Nuclear Energy and Sustainable Development – the Role of Law", published by Forense, Rio de Janeiro, 1995, 638 pages

These Proceedings contain the papers and discussions of the biennial Congress of the International Nuclear Law Association (INLA) – Nuclear Inter Jura 93 held in Rio de Janeiro from 13 to 17 September 1993. This meeting brought together many INLA members, namely nuclear lawyers and scientists as well as representatives of the nuclear industry, government agencies, insurance companies and certain international organisations.

The topic of the Congress – nuclear energy in the context of sustainable development – is in line with the principles and recommendations in Agenda 21 elaborated at the 1992 United Nations Conference on Environment and Development. The general aim was to consider the different uses of nuclear energy according to a mandatory requirement – preservation of the environment, while bearing in mind the economic, social and scientific needs involved.

The Congress was divided into five sessions dealing with the following aspects of nuclear law: licensing and decommissioning; third party liability and cover; international nuclear trade; radiation protection and radioactive waste management. The Congress ended with a Round Table concerning draft standards of good behaviour for the civil nuclear industry and their discussion.

GERMANY

Neues Atomenergierecht – Internationale und nationale Entwicklungen, Regionaltagung in Landshut 1994 – Proceedings of the Congress, edited by Norbert Pelzer, published by Nomos Verlagsgesellschaft, Baden-Baden, 1995, 377 pages

These Proceedings reproduce the papers presented – and the ensuing discussions – at the Landshut (Germany) Congress held on 8 and 9 September 1994 under the auspices of the German branch of the International Nuclear Law Association (INLA). This meeting discussed the new German Atomic Energy Law and international and national developments in nuclear law.

Papers on the Convention on Nuclear Safety were presented at the first session and gave rise to discussions on its implementation at national and international levels. Also, a paper was presented on a future international Convention on safe radioactive waste management.

The second session dealt with the international third party liability regimes – the liability problems linked to the safety of nuclear installations in Eastern Europe – financing compensation for nuclear damage, etc. The third session was devoted to analysing the problems concerning the Atomic Energy Act: impact studies in administrative procedures; backfitting of nuclear installations, the legal role of technical experts, etc.

The sessions were followed by a panel discussion on the evolution of nuclear energy law in the future.

TUNISIA

Drout, science et technologie l'option nucléaire, l'éthique et le droit, Proceedings of the Tunis Colloquium, edited by the Tunis Faculte des sciences juridiques, politiques et sociales, published by the Société française d'énergie nucléaire, 1995, 311 pages

These Proceedings reproduce the papers presented at the Colloquium on the nuclear option, ethics and the law, held in Tunis in May 1994. This meeting was organised by the Legal, Political and Social Sciences Faculty of Tunis with the collaboration of the French branch of the International Nuclear Law Association. It provided a forum for reflecting on the nuclear option and its implications not only from the viewpoint of the law but also from that of policy and ethics in a country which demonstrates great interest in scientific research and technology in the nuclear field.

The papers presented dealt with many questions, ranging from the transport of radioactive materials to the environmental risks of nuclear energy from the prospects for development of the nuclear third party liability regime to the international nuclear non-proliferation regime on the eve of the Revision Conference of the Treaty on the Non-Proliferation of Nuclear Weapons. Attention was also focused on the development of nuclear legislation of the North African countries.

UNITED KINGDOM

Principles of international environmental law – Volume I Frameworks, standards and implementation, edited by Philippe Sands, 773 pages, Volumes IIA and B Documents in international environmental law, edited by Philippe Sands, Richard G Tarasofsky and Mary Weiss, 1709 pages, Volume III Documents in European Community environmental law, edited by Philippe Sands and Richard G Tarasofsky, 838 pages, published by Manchester University Press, 1995

This major compilation assembles the main documents on environmental law and therefore provides an overall picture of that law – the principles and rules of environmental protection and the conservation of natural resources. Each of the four volumes deals with a particular aspect of environmental law, constituting as wide a data base as possible on the subject. All the important international texts are reproduced with their status of signatures and an explanatory note.

Volume I sets out the institutional framework, the field's historical development and the law-making process. Volumes IIA and B on international environmental law consider standards for general application for protection of the atmosphere, oceans, freshwater resources and for control of pollution and waste. The standards which apply in the Antarctic and Arctic regions and in the European Community are also examined. Volume III covers Community environmental law and its general principles. This compilation of documents includes extracts from the Treaties establishing the European Community and Euratom as well as extracts from Regulations, Decisions and other acts of the Community institutions relating to the environment. This Volume also covers the environmental aspects of international rules governing trade, finance, technology etc.

As regards nuclear law it is dealt with in Volume IIB which considers dangerous materials and activities. Reference is made to the Treaty on the Non-Proliferation of Nuclear Weapons, the South Pacific Nuclear Free Zone Treaty (Rarotonga Treaty), the 1986 Conventions on Early Notification of a Nuclear Accident and on Assistance in Case of a Nuclear Accident or Radiological Emergency, as well as to the Paris and Vienna Conventions on nuclear third party liability and the Joint Protocol relating to their application.

This comprehensive set of publications provides an extremely useful tool for practitioners of environmental law as well as for all persons with an interest in that subject.

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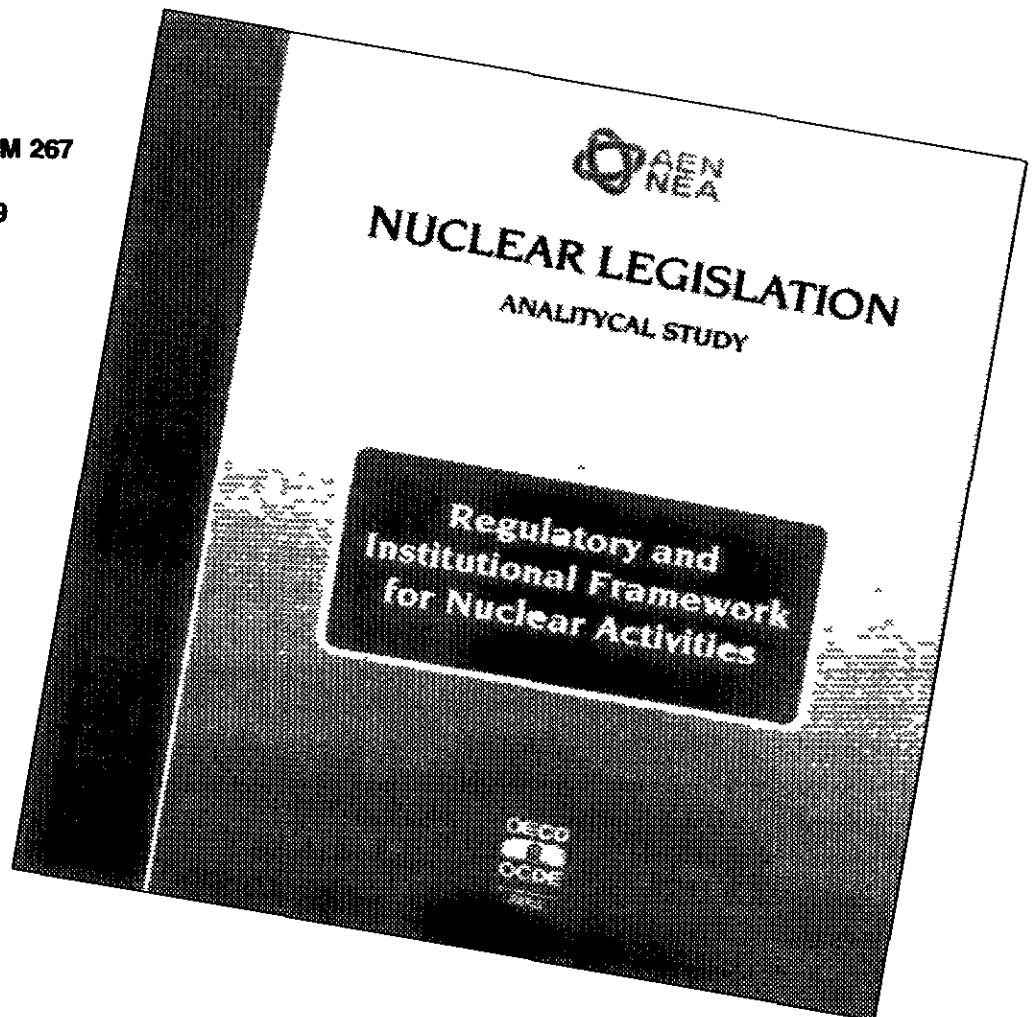
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Ukraine

*Law on the Use of Nuclear Energy and Radiation Safety
(8 February 1995)*

December 1995



Ukraine

LAW ON THE USE OF NUCLEAR ENERGY AND RADIATION SAFETY*

(8 February 1995)

This Law shall constitute the fundamental nuclear law of Ukraine. It shall establish the priority of human and environmental safety and the rights and responsibilities of citizens with regard to the use of nuclear energy, it shall regulate activities connected with the use of nuclear installations and ionizing radiation sources, and, as well, establish the legal basis for Ukraine's international commitments with respect to the use of nuclear energy.

CHAPTER I

General Provisions

Section 1. *Basic Terms and Definitions*

The terms and their respective definitions set forth below shall apply throughout this Law:

use of nuclear energy shall denote a variety of activities associated with the use of nuclear technologies, nuclear materials, and ionizing radiation sources in science, industry, medicine, and other areas, as well as in the production of uranium ores and the management of radioactive waste;

raw material shall denote uranium whose isotopic composition is equivalent to that of natural uranium, or U²³⁵ isotope-depleted uranium, or thorium, or any of the aforementioned substances in the form of a metal, alloy, chemical compound or concentrate, or any other material containing one or several of the aforementioned substances of a concentration stipulated by safety regulations, rules, and standards;

ionizing radiation source shall denote a material object, excluding a nuclear installation, which contains a radioactive substance, or a technical device which generates, or under certain conditions can generate, ionizing radiation;

quality assurance shall denote a set of measures planned and systematically implemented in order to ensure that the activities pursued are in compliance with the requirements of safety regulations, rules, and standards;

disposal of radioactive waste shall denote the placement of radioactive waste into a radioactive waste management facility, with no intention of further use;

*Unofficial translation by the Secretariat.

radioactive waste management facility shall denote a facility, premises, or equipment designed for the collection, transportation, processing, storage or disposal of radioactive waste;

transportation shall denote an activity associated with the relocation of substances, including, but not limited to, servicing of packaging sets, preparation, shipping, hauling, transit storage and acceptance of packages at the destination point;

radioactive waste management shall denote an activity associated with the collection, processing, transportation, storage or disposal of radioactive waste;

radiation safety shall denote compliance with the permissible radiation dose limits for workers, the population and the environment established by safety regulations, rules, and standards;

radiation accident shall denote an event which results in the loss of control of a nuclear installation or an ionizing radiation source and causes or can cause radiation impact on humans and the environment that exceeds the permissible radiation dose limits established by safety regulations, rules, and standards;

radiation protection shall denote a set of radiological, design, technical, and management measures designed to ensure radiation safety;

radioactive waste shall denote a material object or substance, whose radionuclide activity or radioactive contamination level exceeds the dose levels established by safety regulations, rules, and standards, provided, however, that such object or substance is not intended for use;

special fissile material shall denote plutonium Pu²³⁹, uranium U²³³, uranium enriched with the U²³⁵ and U²³³ isotopes, as well as any material containing one or more of the aforementioned substances;

special radioactive waste management facility shall denote a facility or a complex thereof performing licensed collection of radioactive waste, processing, transportation, storage or disposal;

nuclear safety shall denote compliance with regulations, rules, standards, and the conditions relating to the use of nuclear materials which ensure radiation safety;

nuclear installation shall denote a nuclear fuel production facility, a nuclear reactor which employs critical and subcritical fuel assemblies, a research reactor, a nuclear power plant, a nuclear fuel enrichment/reprocessing facility or installation, as well as a spent nuclear fuel storage facility;

nuclear incident shall denote any event or any number of related events of the same origin resulting in nuclear damage;

nuclear material shall denote any raw material or special fissile material;

nuclear damage shall denote death, injury or any material loss or damage, or any other loss or damage, resulting from the hazardous properties of nuclear material at a nuclear installation or of nuclear material supplied to, or received from, a nuclear installation, excluding damage to the nuclear installation itself or to the means of transportation.

Section 2. *Nuclear Legislation*

This Law and other legislative acts of Ukraine shall regulate all matters associated with the use of nuclear energy.

Section 3. *Aims of Nuclear Legislation*

The main aims of nuclear legislation are:

- legal regulation of public matters during all activities associated with the use of nuclear energy;
- creation of the legal basis for a control system with respect to the use of nuclear energy and for a system of safety regulation during the use of nuclear energy;
- establishment of rights, obligations and responsibilities of state authorities, enterprises, institutions, organisations, managers, personnel, and of private citizens in respect of activities carried out by them in connection with the use of nuclear energy;
- defining the basic principles of radiation safety for humans and the environment;
- ensuring the involvement of private citizens and citizens' groups in the shaping of state policy on the use of nuclear energy;
- assisting in further strengthening the international regime for the safe use of nuclear energy.

Section 4. *Main Principles of Radiation Protection*

Radiation protection during the use of nuclear energy shall be based on the following main principles:

- no activity associated with ionizing radiation may be permitted if the ultimate benefit from this activity does not surpass the harm it causes;
- the magnitude of individual doses, the number of persons irradiated and the probability of irradiation from any of the types of ionizing radiation should be the lowest practically achievable, taking into account economic and social factors;
- the total irradiation of individual persons from all sources and types of activity should not exceed set dose limits.

Section 5. *Main Principles of State Policy on the Use of Nuclear Energy and Radiation Protection*

The main principles of State policy on the use of nuclear energy and radiation protection are:

- priority for the protection of humans and the environment from the effects of ionizing radiation;
- ensuring safety during the use of nuclear energy;
- openness and accessibility of information associated with the use of nuclear energy;
- provision for compensation for damage caused by the effects of radiation, and also social and economic compensation for the additional risk factors assumed by personnel of a nuclear installation or ionizing radiation source and by private citizens living or working in the vicinity of a nuclear installation or a radioactive waste management facility;
- taking measures to obtain social and economic involvement on the part of local offices of state authorities and local government authorities in whose area a nuclear installation or a radioactive waste management facility is sited;
- establishing liability for violations of legal safety conditions in the use of nuclear energy;
- delineation of the functions of State control in the use of nuclear energy and of State regulation of nuclear and radiation safety;
- delineation of the functions of State control in the use of nuclear energy and of direct economic activity relating to the use of nuclear energy;
- division of the obligations, rights and responsibilities between all persons participating in the use of nuclear energy;
- standardisation, licensing and supervision of the use of nuclear energy;
- establishing a legal and financial mechanism for imposing upon an operator liability for causing nuclear damage to private citizens and to workers under his authority;
- establishing a legal and financial mechanism for imposing upon a licensee, liability for causing nuclear damage, in the event of a radiation accident, to private citizens and to workers under his authority;
- disposal and long-term storage of radioactive waste is to be effected at the expense of the producers of the waste;
- participation of private citizens and citizens' groups in the shaping of State policy on the use of nuclear energy;
- prohibition of any activity associated with ionizing radiation if the benefit from such activity is less than the potential damage it could cause;
- ensuring that dose limits for personnel and the public comply with the regulations, rules and standards for nuclear and radiation safety;

- establishing the lowest individual dose level, the number of people irradiated and the probability of irradiation from any specific ionizing radiation source in terms of regulations, rules and standards for radiation safety, taking into account the economic and social conditions of the State;
- conclusion of international agreements and the development of international co-operation in the use of nuclear energy for peaceful purposes, and the reinforcement of the international regime for the safety and protection of the public from radiation;
- delineation of State control in the use of nuclear energy and disposal of radioactive waste.

Section 6. *State Policy on the Use of Nuclear Energy and Radiation Protection*

The basis of State policy on the use of nuclear energy and radiation protection is to be shaped by the Supreme Council of Ukraine which shall determine its aims, main tasks, directions, principles and priorities, establish a system of relevant credit, financial taxation, customs and other regulatory means, and by endorsing a State Programme for the development of the fuel and energy complex.

State policy is to be implemented through the creation of an optimal system of control of the use of nuclear energy, by the regulation of questions concerning nuclear and radiation safety, and by the development and introduction of state programmes aimed at ensuring safety.

The State shall make it possible for private citizens and citizens' groups to play a part in the shaping and implementation of State policy on the use of nuclear energy.

Section 7. *Scope of this Law*

This Law applies to all types of activity associated with the use of nuclear energy, including:

- the siting, planning, construction, commissioning, operation and decommissioning of a nuclear installation or an ionizing radiation source;
- the performance of work or provision of services which affects safety during the use of nuclear energy;
- the management of nuclear materials or an ionizing radiation source, in particular during the prospecting for and mining of ores containing these materials and substances;
- the performance of scientific research using a nuclear installation, an ionizing radiation source or nuclear materials;
- the control of the use of nuclear energy;
- State safety regulation during the use of nuclear energy;
- the physical protection of a nuclear installation and of nuclear materials;
- State accountancy covering nuclear materials and ionizing radiation sources;

- State monitoring of radiological conditions in the territory of Ukraine;
- personnel training for activities associated with the use of nuclear energy;
- international co-operation and ensuring compliance with the international obligations of Ukraine in respect of the use of nuclear energy.

The particular application of this Law to matters associated with the maintenance of safety during the liquidation of nuclear weapons and nuclear ammunition, and especially their dismantling, storage and transportation, are to be established by relevant Ukrainian legislation.

Section 8. *Regulations, Rules and Standards in Nuclear and Radiation Safety*

Regulations, rules and standards in nuclear and radiation safety are criteria, requirements and conditions applied to ensure safety during the use of nuclear energy.

Compliance with regulations, rules and standards in nuclear and radiation safety is compulsory in carrying out any type of activity associated with the use of nuclear energy.

The requirements of these regulations, rules and standards are to be adopted in light of the recommendations of competent international organisations in the field of nuclear energy.

Regulations, rules and standards in nuclear and radiation safety are to be ratified as defined by Ukrainian legislation, are for publication, and are obligatory within Ukraine.

Section 9. *Right of Ownership of Nuclear Installations and Ionizing Radiation Sources*

Nuclear installations and ionizing radiation sources may be held in various forms of ownership.

A list of nuclear installations and ionizing radiation sources which are to be owned by the State is to be determined by the Cabinet of Ministers of Ukraine.

Nuclear materials are to be exclusively the property of the State.

CHAPTER II

Rights of Citizens and Citizens' Groups in the Use of Nuclear Energy and Radiation Safety

Section 10. *Rights of Private Citizens and Citizens' Groups to Obtain Information on the Use of Nuclear Energy and Radiation Safety*

Private citizens and citizens' groups have the right to request and obtain full and reliable information from appropriate enterprises, organisations and institutions, within the limits of their competence, concerning the safety of a nuclear installation or a radioactive waste management facility, construction of which is planned or being carried out, or which is being operated or undergoing decommissioning, with the exception of information which constitutes a State secret.

Private citizens have the right to acquire information, from institutions in the State system for monitoring the radiation conditions within Ukraine, concerning radiation levels within Ukraine at places where they live or work. Managers of enterprises, institutions and organisations, citizens' groups or the mass media shall be liable in law for any refusal to give such information, or for deliberate distortion or concealment of objective data in response to questions associated with safety in the use of nuclear energy.

Citizens of Ukraine have the right to visit, for fact-finding purposes and in the established way, nuclear installations and radioactive waste management facilities.

To put the rights of private citizens into practice, State authorities, institutions involved in the State system for radiation monitoring, enterprises, institutions and organisations the activities of which are associated with the use of nuclear energy, and as well their managers, must:

- regularly propagate through the mass media, authorised information on the radiation conditions in areas where uranium ore is being mined, a nuclear installation, a radioactive waste management facility or a source of ionizing radiation is situated or operated, as well as information concerning the safety of a nuclear installation or a radioactive waste management facility which is scheduled for construction, is being built, or is being operated or decommissioned, with the exception of information which constitutes a State secret;
- make it possible for citizens of Ukraine, at their request, to visit directly, for fact-finding purposes and in the established way, a nuclear installation or a radioactive waste management facility.

Section 11. *Rights of Citizens and Citizens' Groups to Participate in Shaping Policy on the Use of Nuclear Energy and Radiation Safety*

Citizens and citizens' groups have the right to participate in discussions of draft legislation and programmes for the use of nuclear energy, and also to participate in the discussion of questions associated with the siting, planning, equipping, operation and decommissioning of a nuclear installation or an ionizing radiation source.

In order to attract citizens and citizens' groups to take part in discussion of questions associated with the use of nuclear energy, local offices of State authorities and local government authorities may organise public

hearings to defend projects associated with the siting, planning, equipping, operation and decommissioning of a nuclear installation or radioactive waste management facility.

Public hearings shall air material provided by the applicant and the results of State or public expert assessments.

The procedure for the holding of public hearings shall be established by the Cabinet of Ministers of Ukraine.

Section 12. *Socio-economic Compensation in the Territory of Uranium Ore Mining Facilities, Nuclear Installations, and Radioactive Waste Management Facilities*

The population of a territory where an uranium ore mining facility, a nuclear installation, or a radioactive waste management facility is situated, shall be entitled to socio-economic compensation for the risks arising from the operation of such installation or facility, including, but not limited to, the following:

- use of part of the funds invested in construction of such installation or facility for construction of public facilities;
- establishment of reduced consumer rates for energy consumption in regions where a nuclear power plant is situated;
- implementation of environmental protection measures stipulated by law;
- partial use of the funds, equal to the value of the electric power generated at the nuclear power plant under operation, for the social and economic development of such territory.

The types, amounts, sources, and procedures of said compensation, as well as the determination of the territories to be covered by the socio-economic benefits shall be determined by the Cabinet of Ministers of Ukraine, as agreed upon with the local offices of State authorities and local government authorities, on the basis of feasibility studies.

Section 13. *Rights of Citizens to Compensation for the Damage Caused by the Negative Impact of Ionizing Radiation During the Use of Nuclear Energy*

Citizens whose health and property have suffered from any damage caused by the negative impact of ionizing radiation shall be entitled to full compensation pursuant to the law.

Section 14. *Rights of Personnel of a Nuclear Installation or an Ionizing Radiation Source*

Personnel of a nuclear installation or an ionizing radiation source shall be entitled to socio-economic compensation for the negative impact of ionizing radiation on their health, pursuant to the laws of Ukraine.

Personnel shall be entitled to professional retraining, improvement of skills, and licensing at the licensee's expense.

Section 15. *Insurance for Risks of Radiation Effects During the Use of Nuclear Energy*

Personnel of a nuclear installation or an ionizing radiation source shall be covered by mandatory insurance for the risk of the negative effects of ionizing radiation, at the licensees' expense.

Citizens of Ukraine, stateless persons, and citizens of foreign countries who permanently reside in the territory of Ukraine, shall have the right to enter into any voluntary insurance agreement to provide claims coverage for the risk of radiation effects on their health and property.

Payment of claims for the risk of radiation effects on health and property under mandatory and voluntary insurance shall be made regardless of payments from social insurance or social security funds, worker's compensation plans, or other payments made in compensation for radiation effects.

Insurance conditions and procedures shall be determined by the laws of Ukraine.

Section 16. *Ensuring Radiation Safety of Patients and Personnel in the Use of Ionizing Radiation Sources for Medical Purposes*

Use of an ionizing radiation source for medical purposes must be justified by comparing the benefit to the patient with the damage such use may cause, and also on the basis of comparison of the benefit and risk connected with the use of alternative diagnostic or treatment methods.

Medical intervention using ionizing radiation is to be employed on the general basis applicable to the use of methods of prevention, diagnosis and treatment established in law for the protection of health. The radiation dose received by a patient must be as low as is possible to achieve the aim of the medical intervention. The regulations covering medical interventions and the dose limits for patient irradiation, taking into account the features of specific types of medical intervention, are to be established by the Ministry of Health of Ukraine.

Types of medical intervention involving the use of ionizing radiation, and the procedure for their use during the performance of compulsory medical examinations, are to be established in law.

Upon his request, a patient is to be given full information on the radiation dose and on the possible harm to his health which may be caused by the use of ionizing radiation during examination or treatment.

CHAPTER III

Competence of Authorities and Control Bodies in the Use of Nuclear Energy and Radiation Safety

Section 17. *Competence of the Supreme Council of Ukraine in the Use of Nuclear Energy and Radiation Safety*

The following lie within the exclusive competence of the Supreme Council of Ukraine in respect of the use of nuclear energy and radiation safety:

- defining the principles of State policy on the use of nuclear energy;
- ratifying the State Programme for the development of the nuclear energy sector as a component part of the State Programme for the development of the fuel and energy complex;
- defining the legal principles for the regulation of matters associated with the use of nuclear energy and radiation protection;
- establishing the legal regime governing areas around operating nuclear power plants and uranium ore mining enterprises, and the status of workers therein;
- regulating the export and import of nuclear materials, ionizing radiation sources, nuclear technologies, special non-nuclear materials, dual-use materials, and equipment, work and services connected with the use of nuclear energy;
- regulating the importation into Ukraine of spent nuclear fuel;
- making decisions on the siting, planning and construction of nuclear installations and radioactive waste management facilities with a view to the general interest of the State;
- approving the procedure for the drafting and ratification of regulations, rules and standards regarding nuclear and radiation safety.

Section 18. *Competence of the Cabinet of Ministers of Ukraine in the Use of Nuclear Energy and Radiation Safety*

The following lie within the competence of the Cabinet of Ministers of Ukraine:

- ensuring that State programmes for the use of nuclear energy are drafted and put into practice;
- setting up agencies to carry out the control and State regulation of safety in the use of nuclear energy in accordance with the law;
- making decisions on the siting, planning, construction, operation and decommissioning of uranium ore mining enterprises, nuclear installations and radioactive waste management facilities, apart from those specified by the Supreme Council of Ukraine;

- administration of nuclear installations, ionizing radiation sources, nuclear materials and radioactive waste management facilities which are the property of the State;
- dealing with matters relating to protecting the public and the environment from the harmful effects of ionizing radiation;
- preparing measures connected with the accountancy and monitoring of nuclear materials and ionizing radiation sources, and with the physical protection of nuclear installations, ionizing radiation sources, nuclear materials and radioactive waste management facilities;
- defining the procedure for drafting and adopting regulations, rules and standards regarding nuclear and radiation safety;
- defining the procedure for importing spent nuclear fuel into Ukraine and exporting such fuel beyond the borders of Ukraine;
- engaging in international co-operation in the use of nuclear energy.

Section 19. *Competence of the Crimean Autonomous Republic in the Use of Nuclear Energy and Radiation Safety*

The following are within the authority of the Crimean Autonomous Republic in respect of the use of nuclear energy and radiation safety:

- participation in the shaping and implementation of State policy of Ukraine on the use of nuclear energy on matters which affect the interests of the Crimean Autonomous Republic;
- performance of State regulation and control of the use of nuclear energy in accordance with this Law, Ukrainian legislation and the legislation of the Crimean Autonomous Republic;
- implementation of measures aimed at eliminating the consequences of radiation accidents.

Section 20. *Competence of Local Offices of State Authorities and Local Government Authorities in the Use of Nuclear Energy and Radiation Safety*

Local offices of State authorities and local government authorities shall, within the limits of their competence:

- give approval for the siting on their territory of a uranium ore mining enterprise, a nuclear installation or a radioactive waste management facility, on the basis of the interests of the citizens living in this territory and the social and economic development of the territory;
- take part in expert environmental assessments of projects for the siting, construction and decommissioning of a uranium ore mining enterprise, a nuclear installation or a radioactive waste management facility located within their territory;

- organise public hearings to defend projects associated with the siting, equipping and decommissioning of a uranium ore mining enterprise, a nuclear installation or a radioactive waste management facility;
- if necessary, organise radiological inspections of areas around the site of a nuclear installation or a radioactive waste management facility;
- ensure that the public is informed about radiation conditions;
- carry out monitoring to ensure that public safety and environmental protection are being upheld within their territory, and that enterprises, institutions, organisations and citizens are prepared for action in the event of a radiation accident;
- take part in eliminating the consequences of radiation accidents;
- ensure emergency preparedness for evacuation of the population, and if necessary, carry out such evacuation;
- supervise the activities of legal entities and natural persons using a nuclear installation, an ionizing radiation source or nuclear materials, in accordance with their responsibilities as determined by law.

Section 21. *State Control in the Use of Nuclear Energy and Radiation Safety*

State control in the use of nuclear energy shall be effected by a body appointed by the Cabinet of Ministers of Ukraine.

This body shall perform the following functions:

- planning, drafting and introduction of State programmes for the use of nuclear energy;
- setting up an operator (energy company) to ensure the safe operation of nuclear power plants, and also specialist enterprises (companies) to manage radioactive waste until it is transferred for long-term storage or disposal;
- planning, drafting and introduction of State programmes to improve nuclear and radiation safety;
- organisation of the safe management of radioactive waste in industry (collection, conditioning, storage) until such time as the radioactive waste is sent for disposal;
- setting up a State system of measures aimed at ensuring emergency preparedness for dealing with an accident at a nuclear installation, a radioactive waste management facility or an ionizing radiation source;
- implementation of State scientific, technical and investment policy concerning the use of nuclear energy;
- ensuring that quality assurance programmes are drafted and put into effect for the use of nuclear energy;
- setting up, planning and co-ordinating staff training systems in the use of nuclear energy.

State control of radioactive waste management at the stage of long-term storage and disposal is to be carried out by a body appointed by the Cabinet of Ministers of Ukraine.

This body shall carry out the following functions:

- co-ordination and monitoring of work to collect, transport, condition, store and dispose of radioactive waste from industry, medicine and scientific research institutions, and radioactive waste arising from work to eliminate the consequences of the accident at the Chernobyl nuclear power plant;
- implementation of State programmes for radioactive waste management;
- creation and operating of a unified state accountancy system for radioactive waste and also for repositories holding such waste;
- co-ordination of work on the construction, operation, reconstruction or elimination of radioactive waste management facilities;
- co-ordination of work to create new radioactive waste repositories both inside and beyond the Chernobyl nuclear power plant exclusion zone;
- co-ordination of work to create a secure national repository for high-level waste and spent nuclear fuel in deep geological formations;
- co-ordination of scientific research and experimental construction work in the field of radioactive waste management at the long-term storage and disposal stage.

Managers of State control bodies for the use of nuclear energy and radioactive waste management shall undergo attestation of their skills and a special medical examination. A schedule of such persons and the frequency of the attestation and medical examination shall be defined in Ukrainian law.

CHAPTER IV

State Safety Regulation in the Use of Nuclear Energy

Section 22. *State Safety Regulation in the Use of Nuclear Energy*

State safety regulation in the use of nuclear energy consists of ensuring the safety of people, the environment, nuclear installations and ionizing radiation sources.

State safety regulation in the use of nuclear energy involves:

- establishing normative criteria and requirements which define the conditions for the use of a nuclear installation or an ionizing radiation source within the State (setting of rules);

- issuing permits (licences) for the performance of activities associated with the use of a nuclear installation or an ionizing radiation source (licensing);
- supervising compliance with the normative requirements and terms of permits issued by organisations, enterprises and persons who utilise a nuclear installation or an ionizing radiation source, including enforced measures (supervision).

Section 23. *State Agencies Regulating Nuclear and Radiation Safety*

State safety regulation in the use of nuclear energy shall be carried out by the Ministry for Protection of the Natural Environment and Nuclear Safety of Ukraine, the Ministry of Public Health of Ukraine and other State authorities in accordance with the law of Ukraine.

State nuclear and radiation safety regulatory agencies shall be independent of State bodies, institutions and officials whose activities are associated with the use of nuclear energy. They are to be independent of local offices of State authorities, local government authorities and citizens' groups.

Officials of State nuclear and radiation safety regulatory agencies shall undergo attestation of their skills and a special medical examination. A schedule of such persons and the frequency of the attestation and medical examination shall be defined in Ukrainian law.

Section 24. *Competence of State Nuclear and Radiation Safety Regulatory Agencies*

State nuclear and radiation safety regulatory agencies shall:

- draft regulations, rules and standards on nuclear and radiation safety;
- bear responsibility for the completeness, adequacy and soundness of their requirements concerning safety in the area of regulation assigned to their competence;
- carry out expert assessments of the safety of a nuclear installation or an ionizing radiation source and issue appropriate permits;
- carry out State supervision of compliance with regulations, rules and standards in nuclear and radiation safety, and also of observance of the terms of issued permits; in the event of violations being discovered, they shall apply administrative sanctions against personnel and managers of enterprises, institutions and organisations in accordance with the law;
- provide prompt notification, via the mass media, of radiation accidents within Ukraine, and beyond Ukraine if there is a possibility of transborder migration of radioactive substances, prepare reports and reviews concerning the status of nuclear and radiation safety within Ukraine, and convey these to the Supreme Council and the President of Ukraine, other State bodies, local government authorities and citizens' groups in the manner established by the law of Ukraine;
- organise and carry out research aimed at improving the safety of nuclear installations and ionizing radiation sources and at solving problems of radiation protection of personnel, the public and the environment;

- have the right to send licensees, owners or managers of enterprises, representations concerning the unsuitability of specific persons to hold the offices they occupy.

Section 25. *State Supervision of Nuclear and Radiation Safety*

State nuclear and radiation safety regulatory agencies shall create State inspectorates which shall be given the task of State supervision of compliance with nuclear and radiation safety requirements.

State inspectorates shall act in accordance with the statutes concerning them, which are to be ratified by the Cabinet of Ministers of Ukraine.

State inspectors shall have the right:

- to visit enterprises, institutions and organisations (hereinafter referred to as “enterprises”), regardless of their form of ownership, without hindrance and at any time, to check compliance with legislation on the use of nuclear energy, and to obtain the necessary explanations, material or information on questions posed from the licensee or owner;
- to send to licensees or their officials, heads of structural sub-divisions of the Government of the Crimean Autonomous Republic, Ministries and other central State authorities and Councils of People’s Deputies orders to carry out instructions (prescriptions) to eliminate violations and inadequacies concerning the safe use of nuclear energy;
- to apply financial sanctions in the established manner to enterprises, institutions and organisations and to entrepreneurs for violations of laws, regulations, rules and standards concerning nuclear and radiation safety, or of the terms of issued permits;
- to restrict, suspend or close down the operation of enterprises, institutions, organisations or facilities in the event of a violation of nuclear and radiation safety requirements;
- to issue summonses in the established manner against persons guilty of violating laws or other normative acts covering nuclear and radiation safety.

On the recommendation of the Ministry for Protection of the Natural Environment and Nuclear Safety of Ukraine, the Cabinet of Ministers of Ukraine shall appoint a Chief State Nuclear Safety Inspector of Ukraine.

Decisions of the Chief State Nuclear Safety Inspector of Ukraine made within the limits of his competence are final and may only be appealed through a court.

Decisions of State inspectors subordinate to the Chief State Nuclear Safety Inspector of Ukraine may be annulled by him.

Appeals from decisions of the Chief State Nuclear Safety Inspector of Ukraine do not suspend the effect of such decisions.

A licensee must create the necessary conditions for the work of the representatives of State nuclear and radiation safety regulatory agencies.

The activities of State agencies regulating the safe use of nuclear energy shall be financed from the State budget. To finance scientific and expert back-up to regulatory activities and priority developments to improve

the safety of ionizing radiation sources, special non-budget funds shall be established at State nuclear and radiation safety regulatory agencies, these funds being financed through the charges accruing from the issue of permits and provision of services, and also through voluntary contributions made by Ukrainian or foreign legal entities or natural persons.

Ultimate supervision of compliance with and proper application of nuclear legislation shall be carried out by the Procurator General of Ukraine and procurators subordinate to him.

Section 26. *Obligation to Obtain a Permit for Utilisation of Nuclear Installations and Ionizing Radiation Sources*

Utilisation of a nuclear installation or an ionizing radiation source within Ukraine is subject to a permit.

A permit for each specific type of activity shall be issued by only one State nuclear and radiation safety regulatory agency suitably authorised to do this by the Cabinet of Ministers of Ukraine.

Legal entities or natural persons who do not possess a properly issued permit are prohibited from carrying out any activity associated with the use of a nuclear installation or an ionizing radiation source. A nuclear installation or an ionizing radiation source may only be utilised in ways and for purposes as provided for in the terms of the permit issued.

The limits and conditions for safe utilisation of a nuclear installation or an ionizing radiation source as defined in the permit should provide the necessary and adequate level of nuclear and radiation safety.

An ionizing radiation source with a radiation effect so low as not to require the use of restrictive measures as stipulated by radiation and nuclear safety regulations, rules and standards shall not be subject to regulation.

Section 27. *Types of Activity to which State Regulation of the Use of Nuclear Energy Applies*

An activity involving the use of nuclear energy (hereinafter referred to as an “activity”) is an activity during which additional radiation sources are introduced, or the effects of radiation are extended to additional groups of people, or the system of orientation of radiation from existing sources has been altered, resulting in an increase of the exposure dose or a probability of persons being irradiated, or an increase in the number of such persons.

State regulation of the use of nuclear energy is applicable to the following types of activity:

- design studies to select a site for the location of a nuclear installation or a radioactive waste management facility;
- planning work on an ionizing radiation source or a nuclear installation;
- manufacture and delivery of an ionizing radiation source or a safety-related element for an ionizing radiation source;
- mining, production and processing of nuclear materials;

- construction, manufacture, production, storage, acquisition and sale of a nuclear installation or an ionizing radiation source;
- commissioning and operation of a nuclear installation or a radioactive waste management facility;
- use of an ionizing radiation source in industry, agriculture, medicine, education or research;
- decommissioning and mothballing of a nuclear installation or a radioactive waste management facility;
- transportation and storage of an ionizing radiation source and radioactive waste;
- training of personnel to operate a nuclear installation, a list of whose duties shall be defined by the Cabinet of Ministers of Ukraine;
- performance of special types of activity by personnel and managers, a list of which shall be defined by the Cabinet of Ministers of Ukraine.

Section 28. *Types of Permit for Activities Involving the Use of Nuclear Energy*

The following types of permit shall be issued for activities involving the use of nuclear energy:

- licences for the planning, construction, mining, production, manufacture, acquisition, sale, possession, commissioning, operation, utilisation, transportation, decommissioning or mothballing of any ionizing radiation source or nuclear installation;
- licences for the performance of a planning study to identify a site for a nuclear installation or radioactive waste management facility, and for the manufacture and supply of safety-related elements;
- certificates attesting to the quality of items supplied;
- permits for activities or production on condition that sanitary regulations, rules and standards for radiation safety are complied with;
- licences to train personnel to operate a nuclear installation;
- licences to train personnel and officials to perform specific types of activity;
- environmental approvals and permits to discharge radioactive substances into the environment.

Section 29. *Conditions and Procedure for Issuing of Permits for Use of Nuclear Energy*

Permits for activities envisaged in Section 27 are to be issued subject to conditions corresponding to established nuclear and radiation safety regulations, rules and standards.

A permit shall specify the particular ionizing radiation source, nuclear installation, radioactive waste management facility, type of activity, conditions and limits of safe use, other requirements and the period of validity of the permit.

The procedure for the issue of permits referred to in Section 28 and the amount of the payment to be made for them shall be set by the Cabinet of Ministers of Ukraine.

The amount of the State levy for the issue of a suitable permit for the use of nuclear energy shall be paid into the account of the body which issued the relevant permit.

Section 30. *Validity of Permit in the Event of Adoption of New Nuclear and Radiation Safety Regulations, Rules or Standards*

The adoption of new nuclear and radiation safety regulations, rules or standards, or alterations or supplements to them, shall not cause the annulment or abbreviation of the period of validity of a permit. In the event of conditions and limits for safety set by existing permits not corresponding to new nuclear and radiation safety regulations, rules or standards, the holder of the permit must prepare appropriate technical and organisational measures. These measures must be approved by the State body which issued the permit.

In the event that the introduction of new nuclear and radiation safety regulations, rules or standards requires alterations to activities, questions concerning the possibility and desirability of temporary activity on the part of a nuclear installation, an ionizing radiation source or a radioactive waste management facility under the earlier conditions are to be decided using a procedure to be established by the Cabinet of Ministers of Ukraine.

CHAPTER V

Status of Legal Entities and Natural Persons Conducting Activities Connected with the Use of Nuclear Energy and Radiation Safety

Section 31. *Applicant*

An applicant is a legal entity or a natural person that submits a file to the government nuclear and radiation safety regulatory agency in order to obtain the right to perform a certain activity.

An applicant shall:

- notify the government nuclear and radiation safety regulatory agency of his intention to engage in an activity of any type referred to in Section 27 herein and to apply for a permit to conduct an activity of such type;
- submit to the government nuclear and radiation safety regulatory agency the documentation stipulated by nuclear and radiation safety regulations, rules, and standards as well as other documentation required by law, to review the issuance to the applicant of a permit for an activity of a certain type.

Section 32. *Licensee*

A licensee is a legal entity or a natural person that has a permit properly issued by the government nuclear and radiation safety regulatory agency, for an activity of a certain type.

A licensee shall be authorized by the owner of the nuclear installation or ionizing radiation source to perform an activity of any type referred to in Section 27 herein. The licensee's authority, as determined by the owner of the nuclear installation or ionizing radiation source, shall be sufficient for the licensee's performance of the functions stipulated by the radiation safety requirements and shall not contradict the requirements of the law of Ukraine.

A licensee shall be fully responsible for the radiation protection and safety of the nuclear installation or ionizing radiation source regardless of any activity or responsibility of a supplier or government nuclear and radiation safety regulatory agency.

A licensee shall have the financial, material, and other resources, an appropriate organizational structure, and personnel necessary to maintain the safety level stipulated by safety regulations, rules, and standards, as well as by requirements established by the issued permit.

A licensee shall have the financial means necessary to compensate any damage caused by an accident that may occur during the use of nuclear energy, with either his own funds or those provided by insurance companies (organisations).

A licensee's authority with respect to the types of activities mentioned above shall become effective only after obtaining the appropriate permit from the government nuclear and radiation safety regulatory agency. Revocation of such appropriate permit shall not relieve the licensee from responsibility for the safety of the nuclear installation or ionizing radiation source until it is transferred to different entities or until a permit is renewed.

A licensee shall establish personnel qualification requirements based on their responsibilities for the safe use and monitoring of a nuclear installation or an ionizing radiation source as well as for the proper operation of equipment ensuring such safety. When personnel perform functions pursuant to the licence ("Licensed Personnel"), their qualification requirements shall be approved by the proper government nuclear and radiation safety regulatory agency.

In case of an accident, the licensee shall, as from the start of such accident, constantly monitor, and predict the amounts of radioactive substances released from within the nuclear installation or radioactive waste treatment facility and notify the appropriate authorities and agencies according to the established procedure.

In case of an accident at the nuclear installation or during the use of an ionizing radiation source, the licensee shall ensure, within his competence, the implementation of protection measures for personnel and the population.

A licensee shall be responsible for notifying the government nuclear and radiation safety regulatory agency of each additional ionizing radiation source as well as of the transfer of an ionizing radiation source to another entity or person which has an appropriate permit. A licensee may not transfer any ionizing radiation source to another entity or person which does not have an appropriate permit.

Section 33. *Operating Organisation*

An operating organisation shall be a legal entity or natural person appointed by the government which shall:

- ensure nuclear and radiation safety;
- obtain a permit for performing activities of certain types pursuant to the law;
- develop and implement measures toward the improvement of the safety of a nuclear installation;
- be entitled to organise the occupancy of workplaces with a view to ensuring the safety of a nuclear installation;
- perform activities related to the site selection, design, construction, commissioning, operation, decommissioning and mothballing of a nuclear installation pursuant to the permit obtained;
- ensure radiation protection of personnel, the population, and the environment;
- be responsible for the physical protection of nuclear materials and for compensation of nuclear damage;
- inform, on a timely basis and fully in accordance with established procedures, any case of malfunction in the operation of a nuclear installation;
- ensure financial coverage for its liability for nuclear damage in the amounts and on terms as may be determined by the law of Ukraine;
- make contributions to the nuclear installation decommissioning fund;
- be liable for damage or loss incurred by personnel during their service in accordance with the law of Ukraine.

An operating organisation shall, from time to time and in accordance with nuclear and radiation safety regulations, rules, and standards, re-assess nuclear installation safety and submit status reports thereof to the government nuclear and radiation safety regulatory agency.

In addition, in cases where significant changes are made to the nuclear installation design or when operating experience shows the invalidity of previous assessments, a safety re-assessment shall be performed at the government nuclear and radiation safety regulatory agency's request.

An operating organisation shall not perform any acts or demonstrate any intentions thereof which may force personnel to violate the provisions of this Law, or of nuclear and radiation safety regulations, rules, and standards.

An operating organisation shall include in the electric energy production costs, expenses incurred for the following:

- implementation of the nuclear installation's operational safety improvement programmes;
- storage of the depleted nuclear fuel and processing and disposal of radioactive waste;
- scientific, technical, design, and technological work in conjunction with the operation of a nuclear installation;
- staffing, training and retraining of personnel;
- nuclear damage insurance coverage for personnel and the population;
- decommissioning and mothballing of a nuclear installation;
- social and economic development of the territory where a nuclear installation or a radioactive waste management facility is located.

Section 34. *Supplier*

A supplier is a legal entity which performs functions associated with the planning, manufacture, delivery, construction or provision of other services connected with the use of nuclear energy.

A supplier shall bear responsibility for the quality of work performed and services rendered. The specific conditions and limits of liability are to be stated in a contract between the licensee and the supplier.

Section 35. *Personnel*

Personnel are the employees of an enterprise, organisation or institution who carry out work associated with the operation of an ionizing radiation source or a nuclear installation.

Personnel are obliged to adhere strictly to the requirements of safety regulations, rules and standards, and not to commit any arbitrary action which could give rise to a situation violating the requirements of this Law.

Personnel at a nuclear installation or a radioactive waste management facility do not have the right to strike.

Section 36. *Restrictions for Reasons of Health for Personnel at Nuclear Installations and Working with Ionizing Radiation Sources*

Personnel must undergo compulsory medical examinations (preliminary for acceptance for work, and regular during employment).

Persons in whom illnesses are diagnosed which are listed in the schedule of medical exclusions for work with an ionizing radiation source shall not be permitted to work at a nuclear installation or with an ionizing radiation source.

The schedule of medical exclusions for work at a nuclear installation or with an ionizing radiation source is to be established by the Ministry of Health of Ukraine.

CHAPTER VI

**Siting, Construction, Commissioning and Decommissioning
of Nuclear Installations and Radioactive Waste Management Facilities**

Section 37. *Procedure for Making Decisions Concerning the Siting of Nuclear Installations and Radioactive Waste Management Facilities*

The right to make proposals concerning the siting of a nuclear installation or a radioactive waste management facility is held by State authorities and local government authorities and by individual legal entities and natural persons.

Proposals are to be made to the Cabinet of Ministers of Ukraine.

For consideration of the siting of a nuclear installation or a radioactive waste management facility, an applicant shall submit a properly prepared file containing a case for the need to set up such an installation or facility and at least three possible sites for its location.

Such a file must contain:

- a description of the natural environment around the potential site for the nuclear installation or radioactive waste management facility;
- an assessment of the effects of the planned construction, commissioning, operation and decommissioning work at the installation or facility in question on the population and the environment;
- the measures envisaged as part of the project to prevent or minimise damaging impacts on the environment.

A decision on the construction of a nuclear installation or a radioactive waste management facility shall be made by the Cabinet of Ministers of Ukraine in conjunction with local offices of State authorities and the local government authorities in whose area the construction of the installation or facility in question is being considered. The decision is to be made on the basis of the results of a State expert assessment of the safety of the installation or facility and other expert assessments in conformity with the law.

Land areas or underground sites for a nuclear installation or a radioactive waste management facility are to be allocated according to a procedure and on conditions defined in land law and in the law relating to the use of underground resources and to the protection of the natural environment of Ukraine.

When decisions are being made concerning the siting of a nuclear installation or a radioactive waste management facility, additional measures aimed at social and economic development of the region must be included. The scope and procedure for the implementation of such measures shall be established in each specific case by the Cabinet of Ministers of Ukraine, together with the local offices of State authorities and local government authorities, on the basis of a scientifically-argued economic justification.

Section 38. *Commissioning of a Nuclear Installation or Radioactive Waste Management Facility*

Commissioning of a nuclear installation or a radioactive waste management facility is to be performed by State acceptance commissions.

Commissioning of a nuclear installation or a radioactive waste management facility must be performed together with manufacturing and service facilities provided for the project.

Section 39. *Shutdown and Restriction of the Operating Characteristics of Nuclear Installations or Radioactive Waste Management Facilities*

The procedure for shutting down a nuclear installation or a radioactive waste management facility must be determined in conformity with regulations, rules and standards for the use of nuclear energy.

The costs in this case must be financed by the owner.

Proposals concerning the shutdown of a nuclear installation or a radioactive waste management facility before the planned resources have been used up, or concerning the restriction of project technical or economic indicators for the operation of such installation or facility, may be made by control bodies or the owners if there is a suitable justification which has been agreed with the State nuclear and radiation safety regulatory agency.

Decisions on the premature shutdown of a nuclear installation or a radioactive waste management facility are to be approved by the State authorities which made the decision to build the installation or facility, and are to be brought to the knowledge of the operating organisation or specialist enterprise not later than two years before commencement of the decommissioning.

Section 40. *State Expert Assessment of Nuclear and Radiation Safety*

A State expert assessment is mandatory for all technical and economic studies, projects for construction or decommissioning, safety files, and changes to safety requirements and limits, with respect to a nuclear installation or a radioactive waste management facility.

State expert assessments of the nuclear and radiation safety of a nuclear installation or a radioactive waste management facility are to be carried out by the State nuclear and radiation safety regulatory agency, taking into account other State expert assessments carried out in conformity with the law.

Representatives of the public and experts from Ukraine, other States or international organisations may be involved in the performance of a State expert assessment of an installation or facility.

Expert assessments of a project for an additional ionizing radiation source are to be organised by local offices of State authorities and local government authorities in accordance with the law of Ukraine.

The customer of a project shall be responsible for financing the cost of an expert assessment of nuclear and radiation safety.

The conclusions of a State expert assessment must be implemented by all persons engaged in the utilisation of nuclear energy. Positive conclusions of a State environmental assessment and a State assessment of nuclear and radiation safety shall serve as the basis for financing the project.

Section 41. *Safety Assessment of Nuclear Installations and Radioactive Waste Management Facilities by Private Experts*

A safety assessment of a nuclear installation or a radioactive waste management facility shall be carried out by private experts on the initiative of citizens' groups at their own expense, or by local offices of State authorities or local government authorities, as a public service, by an organisation or an expert, in accordance with the law.

A private assessment shall be carried out independently of a State assessment.

The results of a private assessment have the status of recommendations, and shall be submitted to the bodies carrying out the State assessment and also to the project customer.

Section 42. *Licensing of the Construction of Nuclear Installations and Radioactive Waste Management Facilities*

The State nuclear and radiation safety regulatory agency shall issue permits (licences) for the construction of a nuclear installation or a radioactive waste management facility provided the results of the review of the safety file forming part of the relevant licensing procedure are positive.

A permit (licence) to build a nuclear installation or a radioactive waste management facility shall not be issued unless there is a plan of decommissioning measures for the installation or facility, an estimate of the volume of the radioactive waste arising therefrom, and a plan for the management of this waste.

Construction of a nuclear installation or a radioactive waste management facility without a permit (licence) shall be stopped by a decision of the State nuclear and regulation safety regulatory agency, with the constructor paying compensation for damage caused to the environment and for restoration to its previous state, and with the imposition of a fine in accordance with the law of Ukraine. Such a decision may only be appealed through a court. The filing of an appeal does not terminate the effect of the decision.

Section 43. *Licence to Operate a Nuclear Installation or Radioactive Waste Management Facility*

A licence to operate a nuclear installation or a radioactive waste management facility is to be issued by the State nuclear and radiation safety regulatory agency following completion of construction in accordance with the project and the performance of commissioning work.

Submission of documentation demonstrating nuclear and radiation safety, and the provision of financial guarantees covering compensation for possible nuclear damage, are mandatory for the issue of a licence to operate a nuclear installation.

Section 44. *Liability for Unjustified Termination of Construction (Operation) of a Nuclear Installation or Radioactive Waste Management Facility*

A State body which has made a decision to build (operate) a nuclear installation or a radioactive waste management facility may annul the decision it made or terminate building (operation) in the event that additional factors are uncovered which have a negative bearing on the safety of the installation or facility or the state of the natural environment, or which give rise to other negative consequences.

Losses associated with the termination of construction (operation) of a nuclear installation or a radioactive waste management facility in the event that additional factors are uncovered which may lead to a decline in the level of safety, a deterioration of the state of the natural environment or other negative consequences are to be compensated at the expense of the organisation responsible for not having taken these factors into consideration in time.

Losses associated with the termination or suspension of construction (operation) of the installation or facility in question by a decision of a State authority of Ukraine may be compensated from the State budget in the event that these additional factors were not uncovered in time.

CHAPTER VII

Special Regime for Areas Where Nuclear Installations or Radioactive Waste Management Facilities Are Sited

Section 45. *Establishment of a Special Regime for Areas where Nuclear Installations and Radioactive Waste Management Facilities are Sited*

A special area regime may be established for the site of a nuclear installation or a radioactive waste management facility.

The procedure for defining a special area regime is to be set by the Cabinet of Ministers of Ukraine.

A health protection zone and an observation zone are to be established on the site of a nuclear installation or a radioactive waste management facility.

The dimensions and limits of these zones are to be defined in the project, in accordance with regulations, rules and standards concerning the use of nuclear energy, approved by the State nuclear and radiation safety regulatory agency and endorsed by the local Council of People's Deputies. Monitoring of radiation conditions must be carried out in health protection and observation zones.

The siting is prohibited within a health protection zone of residential buildings, public structures, children's or health care/convalescence institutions, industrial enterprises, public catering facilities or other structures not connected with the activities of the nuclear installation or radioactive waste management facility.

The utilisation, for national economic purposes, of land or water areas sited inside a health protection zone is possible only with the permission of the State nuclear and radiation safety regulatory agency and with the agreement of the operating organisation, on condition that radiological monitoring of any production is mandatory.

Losses or costs associated with establishing a health protection zone around the site of a nuclear installation or a radioactive waste management facility are to be compensated in accordance with the law of Ukraine.

Section 46. *Restrictions of People's Rights in the Area of a Nuclear Installation*

In the area of a nuclear installation, personnel, visitors and vehicles may be examined using special means for the detection of ammunition, arms, radioactive or toxic agents or other objects which can be used for sabotage or terrorist acts.

It is prohibited, without the permission of the operating organisation, to make a video, film, or photosurvey of the engineering or other technical means used for the protection of a nuclear installation.

Section 47. *Public Proceedings Within the Area of a Nuclear Installation or Radioactive Waste Management Facility*

The holding of gatherings, meetings, demonstrations and other public events within the area of a nuclear installation or radioactive waste management facility or in a health protection zone is prohibited.

The organisation and holding of meetings, demonstrations, picketing, blocking of transport communications and other public proceedings outside the boundaries of a nuclear installation, a radioactive waste management facility or their health protection zones, in so far as such proceedings may disrupt the functioning of the systems of the nuclear installation or radioactive waste management facility, or hinder access by personnel or the bringing in of supplies or firefighting or other special equipment, is prohibited.

Damage caused as a result of the deliberate blocking of transport communications and other illegal actions infringing upon the safe operation of a nuclear installation or radioactive waste management facility shall be compensated by those persons responsible in accordance with the law, and also by local offices of State authorities or local government authorities, if they did not take the necessary steps to prevent and stop the actions in question.

Persons responsible for violating the provisions of this Section shall be prosecuted in accordance with the law of Ukraine.

CHAPTER VIII

Special Conditions for Regulating the Safety of Ships, Space and Other Flying Craft Equipped with Nuclear Installations or Ionizing Radiation Sources

Section 48. *Special Conditions for Regulating the Safety of Ships and Other Craft Equipped with Nuclear Installations or Ionizing Radiation Sources*

Responsibility for the safety of ships and other craft having a nuclear installation or an ionizing radiation source is vested in:

a building enterprise, at the stage of design construction and commissioning of a ship or other craft having a nuclear installation or ionizing radiation source;

a licensee, after acceptance of the ship or other craft having a nuclear installation or an ionizing radiation source.

Activities connected with the use of ships equipped with a nuclear installation or an ionizing radiation source are regulated by the Merchant Shipping Code of Ukraine.

A list of Ukrainian ports which ships and other craft with a nuclear installation or an ionizing radiation source may enter is to be compiled by the Cabinet of Ministers of Ukraine.

The administration of a Ukrainian port, at which ships and other craft having a nuclear installation or an ionizing radiation source are allowed to call, must have a plan of measures to protect the port personnel and other persons on site or in the port waters, in case of an accident on such a ship or craft, and must implement it if necessary. The port administration and local self-government bodies are responsible for implementing the plan of measures for population protection in the port neighbourhood in case of such an accident.

Ships or other craft having a nuclear installation or an ionizing radiation source may call in distress at any Ukrainian port included in the list, having first notified the port administration.

The discharge of radioactive substances into the waters of oceans, seas, rivers, and inner reservoirs from ships or other craft in amounts exceeding the limits specified by safety standards and regulations is prohibited.

In case of a leakage of radioactive substances from ships or other craft in excess of specified limits, captains or crew leaders of such ships or craft are to take all measures to stop or limit the radioactive substance leakage and its spread into the environment, and to promptly inform the State nuclear and radiation safety regulatory body in Ukraine, other ships, and near-by ports situated in a zone of possible radiation impact.

Foreign States situated in a zone of possible radiation impact as a result of a radiation incident on a ship or other craft having a nuclear installation or an ionizing radiation source are to be notified in conformity with international treaties and the laws of Ukraine.

Section 49. *Special Conditions for the Operation of Space and Other Flying Craft Equipped with Nuclear Installations or Ionizing Radiation Sources*

During the design, construction and operation of space or other flying craft with a nuclear installation or an ionizing radiation source on board, consideration must be given to potential accidents to such space or flying craft; in such event, the radiation impact on people and the environment should not exceed the limits established by nuclear and radiation safety regulations, rules and standards.

In the event of a fault occurring on board a space or flying craft which is the property of Ukraine and which has a nuclear installation or an ionizing radiation source which might be the cause of an unplanned return of radioactive substances to earth, the States concerned must be notified and if necessary, they should receive assistance in accordance with international treaties and the laws of Ukraine. Notification of local offices of State authorities and local government authorities, and the public, and the rendering of assistance to the public in case of need are to be carried out in accordance with a procedure to be determined by the Cabinet of Ministers of Ukraine.

CHAPTER IX

Radioactive Waste Management

Section 50. *Goals of Radiation Safety in Radiation Waste Management*

The main goal of radiation safety in radioactive waste management is the protection of persons and the natural environment against intolerable radiation impact throughout the period radioactive waste remains potentially dangerous.

Radioactive waste management requirements are to be defined in the law of Ukraine.

Section 51. *Radioactive Waste Ownership*

Radioactive waste becomes the property of the State upon the provision of a transfer document by the licensee that has produced such waste as a result of his activity.

Until ownership of the radioactive waste is transferred to the State, a licensee whose activity results in producing radioactive waste bears responsibility for radiation protection and safety in managing such waste.

Section 52. *Financing of Radioactive Waste Management*

Radioactive waste management, after transfer to State ownership, is financed from a special State fund.

The amount of, and procedures for contributing to, the special State fund for radioactive waste management are to be established by the laws of Ukraine.

Section 53. *Transborder Transfer of Radioactive Waste*

The transfer of radioactive waste to the territory of Ukraine from another State is prohibited, except for waste that has been produced as a result of services rendered to Ukraine by such other State and must be returned to Ukraine in accordance with contractual requirements.

The procedure for transborder shipments of radioactive waste from Ukraine, to Ukraine or through its territory is determined by international agreements to which Ukraine is a Party.

CHAPTER X

Transportation of Ionizing Radiation Sources

Section 54. *Parties Involved in the Transportation of Ionizing Radiation Sources*

Parties involved in the transport of ionizing radiation sources are:

- a consignor, being any legal entity or natural person delivering cargo for transportation and named as a consignor in shipping documents; and
- a carrier, being any person transporting radioactive substances by any type of transport.

Direct responsibility for the safe transportation of an ionizing radiation source is borne by the consignor unless otherwise stipulated by contract.

Section 55. *Conditions for Issue of a Permit for the Transportation of Ionizing Radiation Sources*

A permit for the transportation of an ionizing radiation source shall only be issued on condition that:

- the safety of the packaging is confirmed by a certificate;
- there is a permit from the State health inspectorate for transportation of an ionizing radiation source by that means of transport;
- there is documentary confirmation that transportation will be carried out by persons who have adequate knowledge of radiation protection;
- there is an emergency plan in case of an accident during transportation;
- there is a guarantee that transportation of the ionizing radiation source is to be carried out using transport that meets the requirements for this transportation;
- there is a guarantee of compensation for damage that may be caused as a result of an accident.

Section 56. *Emergency Measures in Case of an Accident During Transportation of Ionizing Radiation Sources*

In case of a transport accident during the carriage of ionizing radiation sources, the competent local offices of State authorities and local government authorities must draw up a plan of emergency measures (national, regional, local).

Consignors and carriers must also have their own plans of emergency measures.

The issue of a permit for transportation of ionizing radiation sources is prohibited unless plans of emergency measures are drawn up and ready for implementation in case of a transport accident. The content of these plans and the procedures for their elaboration and approval are to be established by safety standards and regulations.

Section 57. *Quality Assurance in the Transportation of Ionizing Radiation Sources*

All parties involved in transportation of ionizing radiation sources and the State safety regulatory agency must have available with a quality assurance system which includes a programme of systematic control and inspection to guarantee the safe transportation of ionizing radiation sources.

Section 58. *Special Conditions for the Transportation of Ionizing Radiation Sources*

Transportation of cargo that does not comply with nuclear and radiation safety regulations, rules and standards is to be carried out in accordance with special conditions set by the State safety regulatory agency for transportation. These conditions must ensure a safety level not lower than that provided for in nuclear and radiation safety regulations, rules and standards.

Section 59. *Special Requirements for International and Transit Transportation of Ionizing Radiation Sources*

International and transit transportation of ionizing radiation sources shall be regulated by international agreements to which Ukraine is a Party.

CHAPTER XI

Physical Protection of Nuclear Materials and Nuclear Installations

Section 60. *Aims of Physical Protection of Nuclear Materials and Nuclear Installations*

The aims of physical protection of nuclear materials and nuclear installations are:

- the creation by the State of conditions which would minimise the potential for unsanctioned diversion of nuclear material, and the potential for and consequences of any deliberate act relating to a nuclear installation, nuclear material, or to a means of transport intended for the transportation

- of nuclear material, which could directly or indirectly create a health hazard or a threat to public safety as a result of the impact of radiation;
- the provision of the necessary information and technical assistance to State bodies carrying out investigations for the purpose of recovering lost nuclear material.

Section 61. *Mandatory Nature of Physical Protection of Nuclear Materials and Nuclear Installations*

Provision of physical protection for nuclear materials and a nuclear installation is a mandatory requirement for the issue of a permit to build and operate a nuclear installation and to manufacture, use, store and transport nuclear materials.

The level of physical protection for nuclear materials during international transportation should comply with the terms of international agreements to which Ukraine is a Party.

Section 62. *State Regulation of Physical Protection of Nuclear Materials and Nuclear Installations*

State regulation of physical protection for nuclear materials and nuclear installations is to be carried out by the State nuclear and radiation safety regulatory agency.

The procedure for State regulation of physical protection of nuclear materials and nuclear installations shall be defined by the Cabinet of Ministers of Ukraine.

Section 63. *Responsibility for Physical Protection of Nuclear Materials and Nuclear Installations*

Responsibility for the provision of physical protection for nuclear materials and nuclear installations shall be borne by the operating organisation.

Section 64. *Persons Authorised to Work with Nuclear Materials and at Nuclear Installations*

Authorisation for a person to work with nuclear materials or at a nuclear installation is to be given by the head of the enterprise, institution or organisation if the results of a special review of all of the information given by that person about himself in accordance with the requirements of this Law, are positive.

A special review shall be carried out on the basis of a suitable inquiry by State investigative bodies in accordance with the law.

The procedure for the performance of a special review shall be established by the Cabinet of Ministers of Ukraine.

Section 65. *Obligations of Persons for whom a Special Review is Performed*

A person wishing to work with nuclear materials or at a nuclear installation must:

- give reliable information about himself, which is properly acknowledged as necessary for an authorisation to work to be given, and his written consent to the review of this information;
- not participate in the activities of a citizens' group which is not registered according to the law or is prohibited according to the established procedure.

A person carrying out work with nuclear materials or at nuclear installations must:

- apply, in accordance with the established procedures the requirements for restricted access to nuclear materials or to a nuclear installation;
- notify those officials who gave their consent to the authorisation to work, where circumstances arise to which this authorisation does not apply.

Section 66. *Refusal to Give an Authorisation to Work or Annulment of Authorisation*

An authorisation to work may not be granted or an authorisation previously granted may be rescinded, if a person:

- fails to meet the requirements of Section 65 of this Law;
- has a criminal record which is regarded as incompatible with the occupation of the post in question;
- is the subject of a judicial inquiry;
- was dismissed from a previous place of work because of a violation of work discipline;
- was officially reprimanded for having issued unacceptable threats to commit an offence;
- participates in illegal activities of bodies of foreign States or foreign organisations.

In the event that a person receives an authorisation to work, but after a certain time circumstances arise to which this authorisation does not apply, the existing authorisation must be rescinded by the official who issued it. Persons whose authorisation has been rescinded may be dismissed without the prior agreement of the trade union body.

A decision to refuse to grant an authorisation to work or to rescind such authorisation shall be made by the administration of an enterprise, institution or organisation following a discussion with the person with respect to whom the decision is being made, giving the basis upon which the decision has been made, and with written

notification addressed to the person in question. Such decision may be appealed in a court within a set period of time.

CHAPTER XII

Prevention of Use of Nuclear Materials, Equipment and Technology for Military Purposes

Section 67. *State System of Safeguards*

The State system of safeguards shall incorporate a set of technical and organisational measures, and shall be applied to all nuclear material which is used for peaceful purposes within the territory of Ukraine, is under its jurisdiction or under its control.

The aim of the State system of safeguards is to ensure that nuclear materials, equipment and technology which are used for peaceful purposes are not used for military purposes.

The State system of safeguards shall be based on this Law and on the provisions of international and bilateral agreements to which Ukraine is a Party, and shall include:

- a State system of nuclear materials accountancy and control;
- a State system of control of the export and import of nuclear materials, equipment and technology.

Section 68. *State System of Nuclear Materials Accountancy and Control*

The organisation and performance of State nuclear materials accountancy and control in Ukraine shall be carried out by the State nuclear and radiation safety regulatory agency.

The operating organisation shall be responsible for nuclear materials accountancy and control in a nuclear installation.

Section 69. *State System of Export Control of Nuclear Materials, Equipment and Technology*

Export of nuclear materials, equipment and technology shall take place under State control and shall be carried out within the framework of the State system of export control.

Licences for the export of nuclear materials, equipment and technology are to be issued according to a procedure established by the Cabinet of Ministers of Ukraine.

Section 70. *Restrictions on the International Transfer of Nuclear Materials, Equipment and Technology*

The international transfer of nuclear materials means the import or export of nuclear materials and technology which come under International Atomic Energy Agency Safeguards.

The international transfer of nuclear materials, equipment and technology which are used within the territory of Ukraine or are under its jurisdiction, or an international transfer which takes place under the control of Ukraine to other States, is prohibited if these States:

- have not undertaken to use nuclear materials, equipment and technology exclusively for peaceful purposes;
- have not guaranteed effective physical protection of nuclear materials to prevent their unsanctioned use or handling;
- have not confirmed the existence of a State system of nuclear materials accountancy and control;
- have not undertaken obligations relating to the conditions for re-export of nuclear materials, equipment and technology to third-party States.

Section 71. *Transfer of Responsibility for Nuclear Materials*

Nuclear materials which are covered by safeguards, or materials which should be covered by safeguards, and which are the subject of international transfer, are considered as materials which fall under the responsibility of:

- the consignor State, in the case of importation into Ukraine, up until the time when the consignor State is relieved of such responsibility in accordance with the contract, but no later than the time when the nuclear materials arrive at their destination within Ukraine;
- Ukraine, in the case of export from Ukraine, up to the moment when the consignee State assumes such responsibility in accordance with the contract, but no later than the time when the nuclear materials arrive at their destination within the consignee State.

Ukraine shall not bear responsibility for nuclear materials when the latter are transported through its territory, above it or in its aeroplanes, on condition that these nuclear materials are, in accordance with the transportation contract, the property of another State.

CHAPTER XIII

Compensation for Nuclear Damage

Section 72. *Operating Organisation's Liability for Nuclear Damage*

Pursuant to this Law, an operating organisation shall incur absolute liability for nuclear damage regardless of whether or not its fault has been proven, except for the cases referred to in Part 2 of Section 73.

Section 73. *Onset of Operating Organisation's Liability for Nuclear Damage*

An operating organisation's liability for nuclear damage shall begin when such damage has been caused by a nuclear incident occurring at, or during transportation of nuclear material(s) to or from, an operating organisation's nuclear installation, provided, however, that no other operating organisation has assumed liability therefor in writing.

An operating organisation shall be relieved of any liability for nuclear damage when such damage is caused by a nuclear incident resulting directly from force majeure, armed conflict, hostilities, civil war, or an uprising.

Any matters which may arise in connection with any damage other than those governed by this Law shall be governed by the civil law of Ukraine.

Responsibility for damage caused by the Chernobyl disaster shall be determined by the applicable law of Ukraine.

Section 74. *Inseparability of Nuclear and Non-Nuclear Damage*

In cases where nuclear damage and non-nuclear damage of any type are the combined result of a nuclear incident and any event of a different nature, such non-nuclear damage, provided it cannot be reasonably distinguished from such nuclear damage, shall be deemed to be nuclear damage caused by said nuclear incident.

Section 75. *Limitation on the Operating Organisation's Liability for Nuclear Damage*

The extent of an operating organisation's liability for compensation of any nuclear damage shall be limited to such monetary sums as may be determined by the laws of Ukraine.

Section 76. *Effective Period for Claims for Nuclear Damage*

The right to claim for any nuclear damage incurred by a person shall remain in effect in perpetuity.

The right to claim for any nuclear damage to property or the environment shall remain in force for a period of ten (10) years from the date such damage was incurred.

Section 77. *Insurance or Other Financial Security for Compensation of Nuclear Damage*

The operating organisation shall provide insurance or other forms of financial security to provide coverage in respect of any nuclear damage claims, in such amounts and on such terms as may be determined by the Cabinet of Ministers of Ukraine.

If the amount of said insurance or any other financial security to provide coverage for any nuclear damage claims should prove to be insufficient, payment of damages under said claims shall be ensured by the Government.

Section 78. *Payment of Nuclear Damage Claims from Other Insurance or Restitution Sources*

Payments for nuclear damage shall include proceeds due from any social insurance or social security funds and medical insurance funds, as well as expenses which are covered in case of an accident in a workplace or in case of an occupational illness. Any funds from which such payments have been drawn, and any organization having paid said sums in compensation for nuclear damage, shall be entitled to recourse against the operating organisation.

Section 79. *Rights of Recourse of the Operating Organisation*

The operating organisation shall be entitled to recourse in the following two circumstances only:

- if such recourse has been agreed to in writing; or
- against a natural person who has acted or failed to act with intent to cause damage, if such action or failure to act on the part of said person has resulted in nuclear damage.

Section 80. *Review of Cases Pertaining to Claims for Nuclear Damage*

Any cases pertaining to the payment of claims for any nuclear damage attributable to a nuclear incident occurring in the territory of Ukraine shall be heard exclusively by Ukrainian courts, unless otherwise stipulated by international treaties to which Ukraine is a Party.

CHAPTER XIV

Liability for Breach of the Law on the Use of Nuclear Energy and Radiation Safety

Section 81. *Liability of Personnel and Managers of a Nuclear Installation or an Ionizing Radiation Source, of an Enterprise, Institution, or an Organisation, and of an Individual for Breach of the Law on the Use of Nuclear Energy and Radiation Safety*

Any breach of the Law on the use of nuclear energy by personnel or managers of any nuclear installation or ionizing radiation source, by personnel or managers of any enterprise, institution, or organisation engaged in other activities involving the use of nuclear energy, or by any individual, shall result in disciplinary, civil (other than civil liability for nuclear damages), administrative or criminal liability pursuant to the law.

- A breach of the Law on the use of nuclear energy shall encompass:
- any non-compliance with nuclear and radiation safety regulations, rules and standards;
- any failure to comply with all requirements for siting of a nuclear installation or a ionizing radiation source;
- any operation, without proper authorisation or licence, of a nuclear installation or an ionizing radiation source, as well as the handling of any nuclear material or an ionizing radiation source without proper authorisation or licence;
- any use of a nuclear installation, an ionizing radiation source or nuclear material for medical purposes without authorisation from an authorised health protection agency;
- any non-compliance with terms and conditions of any permit or licence granted by the appropriate State nuclear and radiation safety agency;
- any non-compliance with regulations of any State nuclear and radiation safety agency;
- issuance of an authorisation (licence) or regulation by any officer of a State nuclear and radiation safety agency in breach of established procedures;
- any delivery, assembly, and commissioning of any defective equipment for a nuclear installation or an ionizing radiation source;
- the start-up of any nuclear installation or ionizing radiation source without prior construction and commissioning of all the equipment included in the overall project design;
- the start-up of any nuclear installation or ionizing radiation source without prior implementation of protection measures for the personnel of such installation, for the local community, and for the environment;
- any interference with any officer of a State nuclear and radiation safety agency in the performance of his duties;

- the non-performance of any official duty in an emergency which resulted in or could have resulted in human casualties or radioactive contamination of the environment;
- any unauthorised abandonment of any nuclear installation or ionizing radiation source by the operating personnel of any regular work shift;
- any authorisation to work at any nuclear installation or ionizing radiation source given to any employee who has failed to complete the appropriate training or has no document certifying such employee's qualifications, as well as any person who is under eighteen (18) years of age or who is found medically unfit;
- any authorisation to work at any nuclear installation given to any person who has not undergone a special examination;
- any act of violence which prevents the operating personnel or officers from performing their official duties;
- any direct or indirect coercion, on the part of any officer, resulting in a breach of operating rules or instructions at any nuclear installation or ionizing radiation source by operating personnel;
- any failure to perform duties under any emergency plan for the protection of the local community and personnel, currently in effect;
- the assignment by any officer of appropriate employees to any radioactively hazardous areas without such employees' consent or without notification thereof of possible radiation levels, in violation of any regulation, rule, or instruction provided therefor;
- any unsubstantiated failure to provide information or any provision of inaccurate information, untimely provision or concealment of information, as well as unsubstantiated classification of information specified in paragraph one of Section 10 hereof as limited-access data;
- the concealment of any accident at any nuclear installation or ionizing radiation source or the untimely notification of government and self-regulatory agencies thereof;
- the withholding or misrepresentation of any information concerning an incident or any other data affecting safety assessment;
- the withholding of any information on the status of radioactive contamination of the environment, as well as the wilful provision of inaccurate information concerning radiation conditions;
- any unjustified or intentional air, water, or underground discharge of radioactive substances in quantities exceeding permissible levels;
- any theft or illegal acquisition, storage, transfer, sale, use or destruction of nuclear materials or ionizing radiation sources, and any withholding of information concerning the preparation or performance of such actions;
- any action which resulted in or could have resulted in nuclear damage;
- any demand to perform or preclude certain actions, together with the threat to use nuclear material or an ionizing radiation source;
- any breach of established procedures for nuclear exports or imports;

- any procurement, by way of a business pursuit, for use and consumption by the public, of any product previously exposed to radiation, or any manufacture and sale, without permission from a duly authorized health protection agency, of any product containing radioactive substances in excess of permissible levels;
- any non-compliance with requirements for ensuring physical protection of nuclear material, an ionizing radiation source, or a nuclear installation;
- any participation in unauthorized public events on the premises of any nuclear installation or facility designed for managing radioactive waste;
- the organization of an unauthorized rally or any other event beyond the boundaries of any nuclear installation or facility designed for managing radioactive waste, if such event has caused or could have caused any obstacle in the arrival of personnel, or delivery of supplies, fire-fighting or any other special equipment to such installation or facility, or if such event has resulted or could have resulted in the malfunctioning of any life support system at such installation or facility.

Liability for any other breach of the Law on the use of nuclear energy shall be determined by the laws of Ukraine.

Section 82. *Liability of Enterprises, Institutions, and Organizations*

A State nuclear and radiation safety agency may impose a penalty on any enterprise, institution, or organization operating in the field of the use of nuclear energy in the event of non-compliance with any safety regulation, rule, or standard, or any conditions in the work licence, if such non-compliance has resulted in or could have resulted in damage to human health or the environment. The amount of such fines shall be determined by the Cabinet of Ministers of Ukraine.

Section 83. *Liability of Organisations and Individuals Performing State Assessments of Nuclear and Radiation Safety*

Any organisation or individual performing an assessment for the State, including an environmental assessment of a nuclear installation or an ionizing radiation source project shall be liable for any damage, excluding civil liability for nuclear damage, arising from any incompetent or unsubstantiated conclusion, in accordance with the laws of Ukraine.

CHAPTER XV

Export and Import of Nuclear Installations, Equipment, and Technologies, Nuclear Materials, Ionizing Radiation Sources and Special Non-Nuclear Materials and Services Concerned with the Use of Nuclear Energy

Section 84. *General Principles for the Export and Import of Nuclear Installations, Equipment and Technologies, Nuclear Materials, Ionizing Radiation Sources and Special Non-Nuclear Materials and Services*

Any export or import of a nuclear installation, equipment or technologies, nuclear materials, including fresh and spent radioactive fuel, an ionizing radiation source, or special non-nuclear materials used to produce nuclear materials or ionizing radiation sources, or services which include the transfer, sale, and purchase for commercial purposes and the transfer for non-commercial purposes (including demonstrations at exhibitions and the conduct of joint operations) shall be performed pursuant to the laws of Ukraine and to international treaties and agreements to which Ukraine is Party.

Section 85. *Conditions for the Export and Import of Nuclear Installations, Equipment, Technologies, Nuclear Materials, and Special Non-Nuclear Materials and Services*

Any export or import of a nuclear installation, equipment or technologies, nuclear materials, or special non-nuclear materials and services shall be performed pursuant to the procedures established by the laws of Ukraine.

Section 86. *Conditions for the Export and Import of Ionizing Radiation Sources*

Any export or import of an ionizing radiation source or of any product based thereon shall be performed pursuant to procedures established by the Cabinet of Ministers of Ukraine.

CHAPTER XVI

International Co-operation of Ukraine in the Use of Nuclear Energy

Section 87. *International Agreements of Ukraine Concerning the Use of Nuclear Energy*

Ukraine shall establish both bilateral and multilateral relations with other nations to achieve the peaceful uses of nuclear energy. Ukraine shall join the existing international agreements and conclude new international agreements to pursue its own interests and opportunities and to develop and strengthen international safety requirements for the use of nuclear energy for peaceful purposes.

If an international treaty or agreement to which Ukraine is a Party stipulates any rules other than those provided by the nuclear legislation of Ukraine, the rules determined by such international treaty or agreement shall prevail.

Section 88. *Participation in the Activities of International Organisations*

Ukraine shall participate in activities conducted by international organisations relating to the use of nuclear energy.

CHAPTER XVII

Concluding Provisions

Section 89. *Validity of Permits Granted Prior to Adoption of this Law*

Any permits to engage in the use of nuclear energy which were valid within Ukraine prior to the adoption of this Law shall become null and void within five years from the date of entry into force of this Law. During such period, any legal entity or natural person operating in the field of the use of nuclear energy shall have its permit renewed pursuant to this Law.

Section 90. *Application of this Law*

All the provisions of this Law shall apply to any nuclear incident which may occur in the territory of Ukraine after this Law enters into force.