

# *On the Structure of the Nuclear Law - New Trends and Options*

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## I. THE IAEA – A PLACE OF DEVELOPING SIGNIFICANT INTERNATIONAL LEGAL INSTRUMENTS

In recent years the International Atomic Energy Agency became a place of developing significant International Legal Instruments, which – in a comprehensive approach – solve the issue of utilisation of nuclear energy for the exclusive peaceful purposes<sup>2</sup>. Important documents, such as **1.** the Convention of Early Notification of a Nuclear Accident; **2.** the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency; **3.** the Convention on Nuclear Safety; **4.** the Model Protocol to the Safeguards Agreements; **5.** the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage; **6.** the Convention on Supplementary Compensation for Nuclear Damage; **7.** the Joint Convention on the Safety Spent Fuel Management and on the Safety of Radioactive Waste Management – represent the major components of the **Nuclear Law**, as a new Chapter of National and International Law.

The main Trends and Options in this field are to promote **1.** the general development and the use of nuclear energy; **2.** to guarantee the control of its exclusively peaceful application for the benefit of mankind.

In last 40 years, in many countries the nuclear energy became an integral part of power production. Safe utilisation of nuclear energy is one of the fundamental conditions on environmental protection. To achieve such important objectives, the international

community has decided **1.** to elaborate; **2.** to adopt and **3.** to promote the precise rules and regulations, which all together constitute today **A NEW FIELD OF LAW – THE NUCLEAR LAW.**

It is known that in 1946, the United States of America – then the only nuclear weapons state – advanced a far reaching proposal “the Baruch Plan”, aimed at vesting in a single international organisation all phases of the development and exploitation of atomic energy.

Later on, in 1953, President Eisenhower proposed the establishment of an international atomic energy agency with a mandate to oversee measures for the allocation of fissionable materials to ensure their peaceful use in the service of mankind.

During the next three years, active negotiations took place for the preparing the Statute of the IAEA. And finally, in October 1956, the Statute of the International Atomic Energy Agency<sup>3</sup> was opened for signature. In 1957, on 29 July, this major legal international instrument entered into force.

From those early days, we have to recall how the IAEA focus rapidly expanding from its original **atoms-for-peace** derivation. The real merits of the Agency are that – within a month or two of its foundation – it started the negotiations on the creation of a nuclear safeguards system designed to deter and detect any diversion of Safeguarded nuclear material to military purposes<sup>4</sup>.

There are no doubts that such a system was felt to be essential if – in the face of the inevitably growing application of nuclear energy – there was to be any chance of restraining the proliferation of nuclear weapons.

To fulfill this difficult, but, undoubtedly, major task, the IAEA had: 1. to promote the contribution of nuclear energy to **peace, health and prosperity**; 2. to verify – through the application of Safeguards – that nuclear facilities and nuclear materials were used exclusively for peaceful purposes<sup>5</sup>.

On its 40th anniversary, the Agency had the possibility to sum up the results of the work that has been done in this period. All delegations noted with satisfaction that throughout its existence, the IAEA has deservedly enjoyed a high reputation as an international organisation competent in the nuclear area which has spared no efforts to assist its Member States in nuclear power development. It is recognized that during these forty years, nuclear science and technology have come an extremely long way: 1. their development has been

characterized by steady growth, although periods of exceptional progress and even some disappointing failure have occurred<sup>6</sup>.

Today, we can justly say that “nuclear power has become one of the crucial factors in human progress”<sup>7</sup>.

It is for sure that one of the most important achievements of the Member States is the elaboration and adoption of those necessary rules of regulations, through which to guarantee the use of nuclear energy exclusively for peaceful purposes<sup>8</sup>. “As mankind faces new challenges such as global environmental issues and sustainable development, the importance of nuclear power as an energy resource will not diminish but increase, as it has such advantages as stable supply and low environmental impact”<sup>9</sup>. Recognizing the importance of nuclear power, however, “does not automatically guarantee a rosy future”<sup>10</sup>. Enhancing the safety – which is an essential prerequisite for the promotion of nuclear energy – is a duty of all Member States to do everything possible for maintaining and strengthening the nuclear non-proliferation regime<sup>11</sup>.

## MAJOR LEGAL INSTRUMENTS TO STRUCTURE THE NUCLEAR LAW

**Liability for nuclear damage** was and continue to be one of the most important concerns of International Community. Over the past few years, the question of liability for nuclear damage has been under consideration as a matter of priority both in the Board of Governors of the IAEA and in the General Conference of the Agency itself. The Member States underlined the need for establishing a **comprehensive legal regime in this field**.

On 21 February 1990, the Board of Governors of the IAEA established the Standing Committee on Liability for Nuclear Damage to deal with all aspects of nuclear liability. This Committee on its seventeenth session<sup>13</sup> completed its task, making the necessary administrative arrangements for a diplomatic conference. The Standing Committee recommended that the

diplomatic conference to be opened to all States, with the view to adopting the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage and the Convention on Supplementary Funding on the basis of the draft texts prepared by the Committee<sup>14</sup>.

The Diplomatic Conference met in Vienna From 8 to 12 September 1997. The Governments of eighty-one States<sup>15</sup> participated in the Conference. Also, were represented by observers four Inter-governmental Organizations and three Non-Governmental organizations. On 12 September 1997, the Diplomatic Conference adopted the Protocol to amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage and the Convention on Supplementary Compensation for Nuclear Damage<sup>16</sup>.

The States Parties to the Protocol - considering that it is desirable to amend the Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963, to provide for broader scope, increased amount of liability of the operator of a nuclear installation and enhanced means for securing adequate and equitable compensation – have agreed **to define nuclear damage** as: 1. loss of life or personal injury; 2. loss or damage of property<sup>17</sup>, determined by the law of the competent court: economic loss arising from loss or damage referred to in sub-paragraph 1 or 2, insofar as not included in those sub-paragraphs, if incurred by a person entitled to claim in respect of such loss or damage<sup>18</sup>. Also, the law of the competent court determines the costs of measures of reinstatement of impaired environment, unless such impairment is insignificant, if such measures are actually taken or to be taken, and insofar as not included in sub-paragraph 2. At the same time, the competent court should determine the loss of income deriving from an economic interest in any use or enjoyment of the environment, incurred as a result of a significant impairment of that environment, and insofar as not included in sub-paragraph 2. The competent court should determine the costs of preventive measures, and further loss or damage caused by such measures. Also, should be determined any other economic loss, other than any caused by the impairment of the environment, if permitted by the general law on civil liability of the competent court<sup>19</sup>.

The Protocol gave, also, a comprehensive definition of *nuclear incident*. Such an incident means “any occurrence or series of occurrences having the same origin which causes nuclear damage or, but only with respect to preventive measures, creates a grave and imminent threat of causing such damage”<sup>20</sup>.

Through new legal instrument “**measures of reinstatement**” means any reasonable measures which have been approved by the competent authorities of the State where the measures were taken, and which aim to reinstate or restore damaged or destroyed components of the environment, or to introduce, where reasonable, the

equivalent of these components into the environment. “The law of the State where the damage is suffered shall determine who is entitled to take such measures”<sup>21</sup>.

A comprehensive definition has been given and for “**preventive measures**”. Such “measures” means “any reasonable measures taken by any person after a nuclear incident has occurred to prevent or minimize damage referred to in sub-paragraphs (k) (i) to (v) or (vii), subject to any approval of the competent authorities required by the law of the State where the measures were taken”<sup>22</sup>.

“Reasonable measures” means “measures which are found under the law of the competent court to be appropriate and proportionate having regard to all the circumstances”<sup>23</sup>.

Special Drawing Right<sup>24</sup> means “the unit of account defined by the International Monetary Fund and used by it for its own operations and transactions”.

The Protocol established that an Installation State may – if the small extent of the risks involved so warrants – exclude any nuclear installation or small quantities of nuclear material from the application of the Convention<sup>25</sup>.

The criteria for the exclusion of nuclear installations and maximum limits for the exclusion of small quantities of nuclear material shall be reviewed periodically by the Board of Governors of the IAEA.

Through the Protocol, after article I of the 1963 Vienna Convention two new articles – IA and IB – were added.

Article IA provides that the Convention “shall apply to nuclear damage wherever suffered”. However, the legislation of the Installation State “may exclude from the application of this Convention damage suffered: a. in the territory of non-Contracting State or b. in any maritime zones established by non- Contracting State in accordance with the international law of the sea”<sup>28</sup>.

Article IB of the Protocol provides that the Convention “shall not apply to nuclear installations used for non-peaceful purposes”.

The Protocol amended article VI of the 1963 Vienna Convention. Paragraph 1 of the article was replaced by the following text:

"1. (a) Rights to compensation under this Convention shall be extinguished if an action is not brought within (i) with respect to loss of life and personal injury, thirty years from the date of the nuclear incident; (ii) with respect to other damage, ten years from the date of the nuclear incident". Also, the Protocol provides that "if, however, under the law of the Installation State, the liability of the operator is covered by insurance or other financial security including State funds for a longer period, the law of the competent court may provide that **rights of compensation** against the operator shall only be extinguished after such a longer period which shall not exceed the period for which his liability is so covered under the law of the Installation State"<sup>30</sup>.

On the new regulations, **actions for compensation** with respect to loss of life and personal injury – or with respect to other damage – which are brought after a period of ten years from the date of the nuclear incident "shall in no case affect the rights of compensation" under the Convention of any person who has brought "an action against the operator before the expiry of that period"<sup>32</sup>.

**Rights to compensation under the Convention** – on the basis of the amended text – "shall be subject to prescription or extinction"<sup>33</sup>, as provided by the law of the competent court, if an action is not brought within three years from the date on which the person suffering damage had knowledge or ought reasonably to have had knowledge of the damage and of the operator liable for the damage, provided that the periods established pursuant to the above subparagraphs of article 8.

Article VII of the 1963 Vienna Convention – after a long and difficult negotiation – was amended as follows: "Where the liability of the operator is unlimited, the Installation State may establish a limit of the financial security of the operator liable, provided that such limit is not lower than 300 million SDRs". The Installation State shall ensure the payment of claims for compensation for nuclear damage which have been established against the operator "to the extent that the yield of

the financial security is inadequate to satisfy such claims" but "not in excess of the amount of the financial security to be provided" under these new regulations<sup>35</sup>.

Where the liability of the operator is unlimited, the Installation State – having regard to the nature of the nuclear installation or the nuclear substances involved and to the likely consequences of an incident originating therefrom – "may establish a lower amount of financial security of the operator, provided that in no event shall any amount so established be less than 5 million SDRs"<sup>36</sup> and provided that the Installation State ensures the payment of claims for compensation for nuclear damage which have been established against the operator by supplying necessary funds "to the extent that the yield of insurance of other financial security is inadequate to satisfy such claims"<sup>37</sup> and up to the limit provided pursuant to sub-paragraph (a) of this paragraph<sup>38</sup>.

Through the Protocol, after article XX of the 1963 Vienna Convention, a new article XX A was added. This article provides that in the event of a dispute between Contracting Parties concerning the interpretation or application of the Convention "the parties to the dispute shall consult with a view to the settlement of the dispute by negotiation or by any other peaceful means of settling disputes acceptable to them"<sup>39</sup>.

If a dispute cannot be settled within six months from the request for consultation, it shall – at the request of any party to such dispute – "be submitted to arbitration or referred to the International Court of Justice for decision"<sup>40</sup>. In that case in which a dispute is submitted to arbitration, if, within six months from the date of the request "the parties to the dispute are unable to agree on the organization of the arbitration, a party may request the President of the International Court of Justice or the Secretary-General of the United Nations to appoint one or more arbitrators"<sup>41</sup>. In cases of conflicting requests by the parties "the request to the Secretary-General of the United Nations shall have priority"<sup>42</sup>.

A State which is a Party to the Protocol, but not to the 1963 Vienna Convention, "shall

be bound by the provisions of that Convention” as amended by the Protocol in relation to other States Parties hereto, and failing an expression of a different intention by that State at the time of deposit of an

instrument of ratification, acceptance, approval or accession<sup>43</sup> “shall be bound by the provisions of the 1963 Vienna Convention in relation to States which are only Parties thereto”<sup>44</sup>.

### CONVENTION ON SUPPLEMENTARY COMPENSATION FOR NUCLEAR DAMAGE

The text of this Convention was negotiated in connection with the Protocol to amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage.

The Convention on Supplementary Compensation for Nuclear Damage was adopted on 12 September 1997 by the Diplomatic Conference held in Vienna, 8-12 September 1997, and was opened for signature on 29 September 1997<sup>45</sup> at the 41st General Conference of the International Atomic Energy Agency.

In order to establish a worldwide liability regime and to encourage regional and global co-operation to promote higher level of nuclear safety in accordance with *the principles of partnership and solidarity*, the States Parties agreed to supplement and enhance the measures to increasing the amount of compensation for nuclear damage.

The purpose of the Convention is “to supplement the system of compensation provided pursuant to national law”<sup>46</sup> which (a) implements one of the instruments referred to in the Convention<sup>47</sup>; (b) complies with the provisions of the Annex to the Convention<sup>48</sup>.

The Convention stipulates that the system shall apply to nuclear damage for which an operator of a nuclear installation used for peaceful purposes situated in the territory of a Contracting Party is liable under the 1963 Vienna Convention on Civil Liability for Nuclear Damage and any amendment thereto which is in force for a Contracting Party to the Convention; under the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy and any amendment thereto which is in force for a Contracting Party to the Convention<sup>49</sup>.

The Convention provides that – without prejudice to obligations which Contracting Parties may have under the international

agreements – “the Contracting Party whose courts have jurisdiction shall inform the other Contracting Parties of a nuclear incident as soon as it appears that the damage caused by such incident exceeds, or is likely to exceed, the amount available” under the provisions of the Convention<sup>50</sup> and that contributions under the Convention “may be required”<sup>51</sup>. The States Parties shall “without delay make all the necessary arrangements to settle the procedure for their relations” in the Convention<sup>52</sup>.

After this notification, the Contracting Party “whose courts have jurisdiction shall request the other Contracting Parties to make available the public funds” required under the Convention<sup>53</sup> to the extent and when they are actually required and “shall have exclusive competence to disburse such funds”<sup>54</sup>.

Under the Convention, the funds shall be distributed as follows: a. 50% to compensate “claims for nuclear damage suffered in or outside the Installation State”<sup>55</sup>; b. 50% to compensate “claims for nuclear damage suffered outside the territory of the Installation State to the extent that such claims are uncompensated under subparagraph a; c. In the event the amount pursuant to the relevant provisions of the Convention<sup>56</sup> is less than 300 million SDRs; the amount in paragraph a shall be reduced by the same percentage as the percentage by which the amount provided pursuant to the provisions of the Convention<sup>57</sup> “is less than 300 million SDRs”; and the amount in paragraph b. shall be increased “by the amount of the reduction calculated pursuant to the above subparagraph”<sup>58</sup>.

On the basis of the pertinent provisions of the Convention<sup>59</sup>, either the 1963 Vienna Convention on Civil Liability for Nuclear Damage or the 1960 Paris Convention on Third Party Liability in the Field of Nuclear

Energy or the Annex to this Convention<sup>60</sup>, as appropriate "shall apply to a nuclear incident to the exclusion of the others"<sup>61</sup>. Subject to the provisions of the Convention on Supplementary Compensation, the 1963 Vienna Convention or the 1960 Paris Convention, as appropriate, the applicable law "shall be the law of the competent court"<sup>62</sup>.

The Convention provides that in the event of a dispute between Contracting Parties concerning the interpretation or application of the Convention "the parties to the dispute shall consult with the view to the settlement of dispute by negotiation or by any

other peaceful means of settling disputes acceptable to them"<sup>63</sup>. In the case in which the dispute "cannot be settled within six months from the request for consultation", it shall, at the request of any party to such a dispute, be submitted "to arbitration or referred to the International Court of Justice for decision"<sup>64</sup>.

Also, the Convention provides that when ratifying, accepting, approving or acceding to the Convention, a State "may declare that it does not consider itself bound by either or both of the dispute settlement procedures provided for in the Convention"<sup>65</sup>.

### JOINT CONVENTION ON THE SAFETY OF SPENT FUEL MANAGEMENT AND ON THE SAFETY OF RADIOACTIVE WASTE MANAGEMENT

The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management was adopted on 5 September 1997 by a Diplomatic Conference held in Vienna from 1 to 5 September 1997.

This Convention was opened for signature at Vienna on 29 September 1997 during the forty-first session of the General Conference of the International Atomic Energy Agency<sup>66</sup>.

Recognizing that the operation of nuclear reactors generates spent fuel and radioactive waste and that other applications of nuclear technologies also generate radioactive waste<sup>67</sup>, the Member States had established as the objectives of the Convention: **a. to achieve and maintain a high level of safety** in spent fuel and radioactive waste management, through the enhancement of national measures and international co-operation including, where appropriate, safety-related technical co-operation; **b. to ensure that during all stages of spent fuel and radioactive waste management there are effective defences against potential hazards so that individuals, society and the environment are protected from harmful effects of ionizing radiation, now and in the future, in such a way that the needs and aspirations of the present generation are met, without compromising the ability of future generations to meet their needs and**

aspirations; **c. to prevent accidents with radiological consequences and to mitigate their consequences should they occur during any stage of spent fuel<sup>68</sup> or radioactive waste management<sup>69</sup>.**

The rules of the convention are applying: **a. to the safety of spent fuel management when the spent fuel results from the operation of civilian nuclear reactors; b. to the safety of radioactive waste management when the radioactive waste results from civilian applications.** The rules of the Convention shall not apply to waste that contains only naturally occurring radioactive materials and that does not originate from nuclear fuel cycle, unless it constitutes a disused sealed source or it is declared as radioactive waste by the Contracting Parties in accordance with the provisions of the Convention.

At the same time, the rules of the Convention are not applying to the safety of management of spent fuel or radioactive waste within military or defence programmes, unless declared as spent fuel or radioactive waste for the purposes of the Convention by the Contracting Parties. It should be noted that the rules of the Convention shall apply to the safety of management of spent fuel and radioactive waste from military or defense programmes if and when such materials are transferred permanently to and managed within exclusively civilian programmes<sup>70</sup>.

The Convention established that the ultimate responsibility for ensuring the safety of spent fuel and radioactive waste management rests with the State.

The Convention established that each Contracting Party shall take the appropriate steps to ensure that at all stages of **spent fuel management**, individuals, society and the environment are adequately protected against radiological hazards. To fulfill this task, each Contracting Party has the obligation: **a.** to ensure that criticality and removal of residual heat generated during spent fuel management are adequately addressed; **b.** to ensure that the generation of radioactive waste associated with spent fuel management is kept to the minimum practicable, consistent with the type of fuel cycle policy adopted; **c.** to take into account interdependencies among the different steps in spent fuel management; **d.** to provide for effective protection of individuals, society and the environment, by applying at the national level suitable protective methods as approved by the regulatory body<sup>71</sup>, **e.** to take into account the biological, chemical and other hazards that may be associated with spent fuel management; **f.** to strive to avoid actions that impose reasonably predictable impacts on future generations greater than those permitted for the current generation; **g.** to aim to avoid imposing undue burdens on future generations<sup>72</sup>.

The Convention established that each Contracting Party shall take the appropriate steps to ensure that at all the stages of **radioactive waste management** individuals, society and the environment are adequately protected against radiological hazards. In doing so, each Contracting Party shall take the appropriate steps to ensure that criticality and removal of residual heat generated during radioactive waste management are adequately addressed<sup>73</sup>.

Each Contracting Party – in accordance with the provisions of the Convention – has a duty to take the appropriate steps to review: **a.** the safety of any radioactive waste management facility existing and to ensure that, if necessary, all reasonably practicable improvements are made to upgrade the

safety of such a facility; **b.** the results of past practices in order to determine whether any intervention is needed for reasons of radiation protection bearing in mind that the reduction in detriment resulting from the reduction in dose should be sufficient to justify the harm and the costs, including the social costs of the intervention<sup>74</sup>.

The Convention on Nuclear Safety was adopted on 17 June 1994 by a Diplomatic Conference held in Vienna from 14 to 17 June 1994<sup>75</sup>.

Aware of the importance to the international community of ensuring that the use of nuclear energy is safe<sup>76</sup>, well regulated and environmentally sound<sup>77</sup>, Member States have decided: **a.** to achieve and to maintain a high level of nuclear safety worldwide through the enhancement of national measures and international co-operation including, where appropriate, safety-related technical co-operation; **b.** to establish and maintain effective defences in nuclear installations against potential radiological hazards, in order to protect individuals, society and the environment from harmful effects of ionizing radiation from such installations; **c.** to prevent accidents with radiological consequences and to mitigate such consequences should they occur<sup>78</sup>.

The scope of the Convention is to be applied "to the safety of nuclear installations"<sup>79</sup>.

In accordance with the rules of the Convention, each Contracting Party shall ensure that: **a.** comprehensive and systematic safety assessments are carried out before the construction and commissioning of a nuclear installation and throughout its life. Such assessments shall be well documented, subsequently updated in the light of operating experience and significant new safety information, and reviewed under the authority of the regulatory body; **b.** verification by analysis, surveillance, testing and inspection is carried out to ensure that the physical state and the operation of a nuclear installation continue to be in accordance with its design, applicable national safety requirements, and operational limits and conditions<sup>80</sup>.

Each Contracting Party shall take the necessary measures to ensure that "in all operational states the radiation exposure to the workers and the public caused by a nuclear installation shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits"<sup>81</sup>.

The Convention established that each Contracting Party shall ensure that appropriate procedures are implemented for evaluating all relevant site-related factors likely to affect the safety of a nuclear installation for its projected lifetime; for evaluating the likely safety impact of a proposed nuclear installation on individuals, society and the environment; for re-evaluating as necessary all relevant factors referred to above, so as to ensure the continued safety acceptability of the nuclear installation; for consulting Contracting Parties in the vicinity of a proposed nuclear installation, in so far as they are likely to be affected by that installation<sup>82</sup>. Upon request the necessary information shall provide to such Contracting Parties, in order "to enable them to evaluate and make their own assessment of the likely safety impact on their own territory of the nuclear installation"<sup>83</sup>.

The Comprehensive Nuclear Test Ban Treaty was adopted by the General Assembly of the United Nations on 10 September 1996 and was opened for signature by all States on 24 September 1996<sup>84</sup>.

a. In accordance with the provisions of the Treaty "each State Party undertakes not to carry out any nuclear weapon test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control"<sup>85</sup>. Furthermore, each State Party undertakes "to refrain from causing, encouraging, or in any way participating in the carrying out of any nuclear weapon test explosion or any other nuclear explosion"<sup>86</sup>.

b. Adopting the Treaty, States Parties underlined the need for continued systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons, and of general and complete disarmament under strict and effective international control.

c. The General Assembly of the United Nations made an insistent appeal for the adherence of all States to the Treaty and its objectives to contribute effectively to the prevention of the proliferation of nuclear weapons in all its aspects, to the process of nuclear disarmament and therefore to the enhancement of international peace and security<sup>87</sup>.

Undoubtedly, in its 40 years of existence, the International Atomic Energy Agency has been working to benefit of mankind by encouraging universal co-operation among States *in making full use* of atomic energy to solve a wide range of problems, first of all in the areas of energy, health care and agriculture<sup>88</sup>.

At the same time, the Agency has distinguished itself as an effective and reliable instrument of multilateral co-operation of States to prevent the proliferation of nuclear weapons.

As was underlined during the debates of the General Conference of the IAEA "in the arms race, there could be no clear victory"<sup>89</sup>. But, in the race to achieve our ultimate objectives: the eventual elimination of nuclear weapons and the safe use of nuclear science for peaceful purposes, "we will all share in the victory, and our children will reap the rewards"<sup>90</sup>.

a. In the coming years, it would be necessary: 1. To continue the process of elaboration and adoption those *legal instruments*, which can guarantee the peaceful uses of atomic energy; 2. to ensure their full implementation on the national and international levels<sup>91</sup>.

b. The rules and regulations in this field should ensure: 1. the development and implementation of nuclear technologies which are environmentally sound, growing energy demands of mankind; 2. stronger barriers to proliferation of nuclear weapons; 3. deep reduction of nuclear weapons; 4. verification of fissile materials removed from military use; 5. the guarantee that new fissile material is no longer produced; 6. that all nuclear reactors are operating safety; 7. the use of nuclear energy to advance world peace, prosperity and health; 8. better protection of the environment; 9. the development of



international co-operation in nuclear, radiation and waste safety; 10. the promotion of technical assistance through adequate ways and means, in particular, for developing countries<sup>92</sup>.

c. Rules and regulations should guarantee nuclear safety. "We cannot afford to neglect the tragic lessons of the Chernobyl disaster, and must ensure that every State conducting nuclear activities has a sound regulatory infrastructure and that every nuclear operator is implementing "best practice safety culture"<sup>93</sup>.

It is for sure that the nuclear law can continue to play an important role in safety meeting the growing need for electricity generation in the relatively short-term; in assuring the strategic safety and reliability of electricity generation in the long-term; in mitigating the threat of global climatic change caused by the continuous growth in electricity generation.

So structured, the *nuclear law* will continue to have a direct and remarkable contribution on international *peace* and *prosperity*<sup>94</sup>.

## Notes:

<sup>1</sup> Professor Dumitru MAZILU, in his capacity as Ambassador, Permanent Representative of Romania to the International Atomic Energy Agency, was elected, in 1996, by consensus, the Chairman of the Working Group on the 40th anniversary of the IAEA.

<sup>2</sup> See the *Statement of the United Kingdom of Great Britain and Northern Ireland Delegation to the Forty-First Regular Session of the International Atomic Energy Agency*, 29 September to 3 October 1997; see the *Statement of the Delegation of Canada to the 41st Session of the IAEA*; see the *Statement of the Delegation of Romania to the 41st Session of the IAEA*.

<sup>3</sup> See the *Statute of the International Atomic Energy Agency*. The Statute was approved on 23 October 1956 by the Conference on the Statute of the International Atomic Energy Agency, which was held at the Headquarters of the United Nations. The Statute has been amended three times, by application of the procedure laid down in paragraph A and C of Article XVIII. All these amendments have been incorporated in the text of the Statute.

<sup>4</sup> See the *Statement of the United States Delegation to the Forty First Regular Session of the IAEA*, Vienna, 29 September 1997; See the *Statement of the Delegation of Australia to the Forty First Session of the IAEA*.

<sup>5</sup> See the *President William J. Clinton's Message on the 40th Anniversary of the IAEA*; see the *President Boris N. Yeltsin's Message to the participants in the 41st Session of the General Conference of the International Atomic Energy Agency*, Vienna, 29 September-3 October 1997.

<sup>6</sup> See *The Statement of the Russian Federation Delegation to the Forty-First Regular Session of the General Conference of the IAEA*, Vienna, 29 September 1997; see the *Statement of the Delegation of Japan to the Forty-First Session of the General Conference of the International Atomic Energy Agency*, Vienna, 29 September 1997.

<sup>7</sup> *The Statement of the Russian Federation Delegation to the Forty-First Session of the IAEA*, 29 September 1997.

<sup>8</sup> See the *Message of the Prime Minister of Japan on the 40th Anniversary of the International Atomic Energy Agency*, Vienna, 29 September 1997.

<sup>9</sup> *The Message of Prime Minister of Japan on the 40th Anniversary of the International Atomic Energy Agency*, Vienna, 29 September 1997.

<sup>10</sup> *Ibid.*

<sup>11</sup> See the *Statement of the Delegation of Romania on the 40th Anniversary of the International Atomic Energy Agency*, Vienna, 29 September 1997.

<sup>12</sup> See Document GOV/12427.

<sup>13</sup> This was the Second Part of its seventeenth session on 10 and 11 April 1997 (See the *Report of the Standing Committee*, Document GOV/2924).

<sup>14</sup> See Document GOV/INF/822 – GC(4)/INF/13, 19 September 1997.

<sup>15</sup> Romania had a delegation to the Conference.

<sup>16</sup> On 29 September 1997, the Head of the Romanian Delegation signed both Legal Instruments. (This was the first day opened for signature of these documents).

<sup>17</sup> Article 2, *Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage*, adopted at Vienna on 12 September 1997.

<sup>18</sup> Paragraph 2, art. 12 of the Protocol.

<sup>19</sup> The case of subparagraphs (i) to (v) and (vii), to the extent that the loss or damage arises out or results from ionizing radiation emitted by any source of radiation inside a nuclear installation, or emitted from nuclear fuel or radioactive products or waste in, or nuclear material coming from, originating in, or sent to, a nuclear installation, whether so arising from radioactive properties of such matter, or from a combination of radioactive properties with toxic, explosive or other hazardous properties of such matters (see sub-paragraph (vii), art. 2 of the Protocol).

<sup>20</sup> Paragraph 3, art. 2 of the Protocol.

<sup>21</sup> Paragraph 4 (m), art. 2 of the Protocol.

<sup>22</sup> Paragraph 4 (n), art. 2 of the Protocol.

<sup>23</sup> For example: the nature and extent of the damage incurred or, in the case of preventive measures, the nature and extent of the risk of such damage; the extent to which, at the time they are taken, such measures are likely to be effective; and relevant scientific and technical expertise.

<sup>24</sup> Referred to as SDR.

<sup>25</sup> Provided that a. with respect to nuclear installations, criteria for such exclusion have been established by the Board of Governors of the International Atomic Energy Agency and any exclusion by an Installation State satisfies such criteria and b. with respect to small quantities of nuclear material, maximum limits for the exclusion of such quantities have been established by the Board of Governors of the IAEA and any exclusion by an Installation State is within such established limits.

<sup>26</sup> Paragraph 5, article 2 of the Protocol.

<sup>27</sup> Paragraph 1, article IA of the Protocol.

<sup>28</sup> An exclusion pursuant to this paragraph may apply only in respect of a non-Contracting State which at the time of the incident a. has a nuclear installation in its territory or in any maritime zones established by it in accordance with international law of the sea; and b. does not afford equivalent reciprocal benefits.

<sup>29</sup> Paragraph 1 (a) article 8 of the Protocol.

<sup>30</sup> Paragraph 1 (b), article 8 of the Protocol.

<sup>31</sup> As is referred to in sub-paragraph b of this paragraph of article 8 of the Protocol.

<sup>32</sup> Paragraph 1 (c), article 8 of the Protocol.

<sup>33</sup> Paragraph 3, article 8 of the Protocol.

<sup>34</sup> Sub-paragraph (a), paragraph 1, article 9 of the Protocol.

<sup>35</sup> Article 9 of the Protocol.

<sup>36</sup> Sub-paragraph (b), paragraph 1, article 9 of the Protocol.

<sup>37</sup> Sub-paragraph (b).

<sup>38</sup> See the text of sub-paragraph (a), paragraph 1, article 9 of the Protocol. It is important to note that – on the basis of these new regulations – where in respect of claims brought against the operator the damage to be compensated under the Convention exceeds, or is likely to exceed, the maximum amount made available pursuant to the text “priority in the distribution of the compensation shall be given to claims in respect of loss of life or personal injury”.

<sup>39</sup> Paragraph 1, article 17 of the Protocol.

<sup>40</sup> Paragraph 2, article 17 of the Protocol.

<sup>41</sup> See above.

<sup>42</sup> See above. When ratifying, accepting, approving or acceding to the Convention, a State “may declare that it does not consider itself bound by either or both of the dispute settlement procedures” provided for in this article. A Contracting Party which has made such a declaration “may at any time withdraw it by notification to the depositary” (Paragraph 3 and 4, article 17 of the Protocol).

<sup>43</sup> Paragraph 4, article 20 of the Protocol.

<sup>44</sup> Romania acceded to the 1963 Vienna Convention on 29 December 1992 and signed the Protocol to amend the Vienna Convention on 29 September 1997.

<sup>45</sup> Romania signed the Convention on Supplementary Compensation for Nuclear Damage on 29 September 1997.

<sup>46</sup> Paragraph 1, article II of the Convention.

<sup>47</sup> See article I of the Convention.

<sup>48</sup> See articles I to 11 of the Annex to the Convention.

<sup>49</sup> See article I of the Convention.

<sup>50</sup> Article VI, *Notification of Nuclear Damage*.

<sup>51</sup> See article III, 1 (a) of the Convention.

<sup>52</sup> See article III, 1 (b) of the Convention.

<sup>53</sup> See article III, 1 (b) of the Convention.

<sup>54</sup> *Call for Funds*, paragraph 1, article VII of the Convention. The Convention established that “independently of existing or future regulations concerning currency or transfers, Contracting Parties shall authorize the transfer and payment of any contribution” provided pursuant to the provisions of the Convention “without any restriction”. (Paragraph 2, article VII of the Convention).

<sup>55</sup> Paragraph 1 (a), article XI of the Convention.

<sup>56</sup> Article III, 1 (a) of the Convention.

<sup>57</sup> See article III, 1 (a) of the Convention.

<sup>58</sup> See paragraph 1 (c) (i) of the Convention. The Convention established that – if the Contracting Party, in accordance with the rules regarding the means to ensure compensation (article III of the Convention) – “has ensured the availability without discrimination of an amount not less than 600 million SDRs, which has been specified to the Depository prior to the nuclear incident, all funds referred to in Article III, 1 (a) and (b) shall, notwithstanding paragraph 1 (of Article XI), be made available to compensate nuclear damage suffered in and outside the Installation State”. (Paragraph 2, Article XI, *Allocation of Funds*).

Each Contracting Party shall ensure that the persons suffering damage “may enforce their rights to compensation without having to bring separate proceedings according to the origin of the funds provided for such compensation and the Contracting Parties may intervene in the proceedings against the operator liable”. (Paragraph 2, article X of the Convention).

<sup>59</sup> See article XIV of the Convention.

<sup>60</sup> See Annex to the Convention on Supplementary Compensation for Nuclear Damage.

<sup>61</sup> Paragraph 1, article XIV of the Convention.

<sup>60</sup> Paragraph 1, article XIV of the Convention.

<sup>62</sup> Paragraph 2, article XIV of the Convention.

<sup>63</sup> Paragraph 2, article XVI of the Convention.

<sup>64</sup> Paragraph 1, article XVI of the Convention.

<sup>65</sup> The other Contracting Parties shall not be bound by a dispute settlement procedure provided for in these provisions (Paragraph 2, article XVI of the Convention) “with respect to a Contracting Party for which such a declaration is in force” (Paragraph 3, article XVI of the Convention).

<sup>66</sup> Romania signed the Convention on 29 September 1997.

<sup>67</sup> During the Diplomatic Conference was underlined the importance to the international community of ensuring that sound practices are planned and implemented for the Safety of spent fuel and radioactive waste management.

<sup>68</sup> Spent fuel means nuclear fuel that has been irradiated in and permanently removed from a reactor core.

<sup>69</sup> Article 1 of the Convention. Radioactive waste management means all activities, including decommissioning activities, that relate to the handling, pre-treatment, treatment, conditioning, storage, or disposal of radioactive waste excluding off-site transportation.

<sup>70</sup> *Scope of Application*, Article 3 of the Convention. It should be underlined that spent fuel held at reprocessing facilities as part of a reprocessing activity is not covered in the scope of the Convention, unless the Contracting Party declares reprocessing to be part of spent fuel management. (See paragraph 1 Article 3 of the Convention).

<sup>71</sup> In the framework of its national legislation which has due regard to internationally endorsed criteria and standards.

<sup>72</sup> *General Safety Requirements*, Article 4 of the Convention.

<sup>73</sup> See *Safety of Radioactive Waste Management*, Chapter 3, Article 11 of the Convention. Each Contracting Party shall ensure that the generation of radioactive waste is kept to the minimum practicable. Also, it shall take into account interdependencies among the different steps in radioactive waste management. The Contracting Party shall strive to avoid actions that impose reasonably predictably impacts on future generations greater than those permitted for the current generation.

<sup>74</sup> *Existing Facilities and Past Practices*, Article 12 of the Convention. See, also, *Siting of Proposed Facilities*, Article 13 of the Convention and articles 14 and 15 (*Design and Construction of Facilities and Assessment of Safety of Facilities*). See, at the same time, the Report by the Director General, GOV/29 1 6, 28 April 1997.

<sup>75</sup> Romania signed the Convention, on 20 September 1994 and ratified it on 1 June 1997.

<sup>76</sup> The Convention established that responsibility for nuclear safety rests with the State having jurisdiction over a nuclear installation.

<sup>77</sup> Having in mind that accidents at nuclear installations have the potential for transboundary impacts.

<sup>78</sup> *Objectives, Definitions, and Scope of Application*, Chapter 1, Article 1 of the Convention.

<sup>79</sup> Article 3 of the Convention. Nuclear installation means for each Contracting Party any land-based civil nuclear power plant under its jurisdiction, including such storage, handling and treatment facilities for radioactive

materials as are on the same site and are directly related to the operation of the nuclear power plant. Such a plant ceases to be a nuclear installation when all nuclear fuel elements have been removed permanently from the reactor core and have been stored safely in accordance with approved procedures, and a decommissioning programme has been agreed to be the regulatory body (Article 2 of the Convention).

<sup>80</sup> Article 14 of the Convention.

<sup>81</sup> Article 15 of the Convention.

<sup>82</sup> Article 17 of the Convention.

<sup>83</sup> Paragraph (IV), article 17 of the Convention. Contracting Parties which do not have a nuclear installation on their territory, in so far as they are likely to be affected in the event of a radiological emergency at a nuclear installation in the vicinity "shall take the appropriate steps for the preparation and testing of emergency plants for their territory that cover the activities to be carried out in the event of such an emergency". (Paragraph 3, article 16 of the Convention). See also, *Design and Construction* (Article 18 of the Convention) and *Operation* (Article 19 of the Convention).

<sup>84</sup> Romania signed the Treaty in September 1996.

<sup>85</sup> Basic obligations, Paragraph 1, Article I of the Treaty.

<sup>86</sup> Paragraph 2, Article I of the Treaty.

<sup>87</sup> See *Statement of the United States Delegation to the Forty-First Regular Session of the General Conference of the IAEA*; see the *Statement by the Delegation of Austria on behalf of the European Union*, Vienna, 21 September 1998.

<sup>88</sup> See *President William J. Clinton's Message on the 40th Anniversary of the IAEA*; see *President Boris N. Yeltsin's Message on the 40th Anniversary of the IAEA*.

<sup>89</sup> *The Statement of the United States Delegation to the Forty-First Regular Session of the General Conference of the IAEA*.

<sup>90</sup> *Ibid.*

<sup>91</sup> See the *Message of the Secretary-General of the United Nations to the Forty-Second Regular Session of the General Conference of the IAEA*, Vienna, 21 September 1998.

<sup>92</sup> See the *Statement of the Delegation of Austria on behalf of the European Union*, Vienna 21 September 1998; see the *Statement of the Delegation of Romania to the Forty-Second Session of the General Conference of the IAEA*, Vienna, September 1998.

<sup>93</sup> *The Message of the Secretary-General of the United Nations to the Forty-Second Regular Session of the General Conference of the IAEA*, Vienna, 21 September 1998.

<sup>94</sup> See the *Statement by Director-General of the IAEA to the Forty-Second Regular Session of the General-Conference of the IAEA*, Vienna, 21 September 1998.