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## The Concepts of State Responsibility and Liability in Nuclear Law

**Abstract.** The legal concept and the doctrinal theory of state responsibility and liability have been in the focus of public international law for a long while. By means of domestic legislation, national law—regardless of the relevance of the international legal framework—governs the system of civil liability within the area of civil law of each state. Whereas, as opposed to the framework of civil liability governed by diverse domestic rules, exclusively a standard regulation framed at an inter-state level can secure a uniform system of state liability. The issue of state responsibility for nuclear damages raises specific questions to be examined in the framework of general international regulations (e.g., Conventions adopted within the area of nuclear law) related to responsibility and liability. Thus, answering or the clarification of these specific pivotal questions within the scope of public international law shall be our starting point, which may also entail the modification of the matter of state responsibility and liability (not only in the concerned branch of law).

**Keywords:** ILC's Draft Articles, state responsibility, primary and secondary rules, civil liability, transboundary damages, the Chernobyl accident, Paris Convention of 1960, Vienna Convention of 1963

### The Issue of State Responsibility in the Practice of the International Law Commission

The concept of state responsibility and liability<sup>1</sup> had formerly been considered by the international (academic) community, when, as a result of the efforts made by various forums of international policy-makers and actors,<sup>2</sup> the International

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<sup>1</sup> As for the traditional, brief history of 'state responsibility', cf. Bodansky, D.–Crook, J. R.: Symposium: the ILC's State Responsibility Articles. *American Journal of International Law* 96 (2002), 773–779.

<sup>2</sup> E.g. the substantial discussion in the Sixth Committee of the UN General Assembly, written comments by a number of Governments, as well as by a study of the International Law Association. Cf. *Fourth Report on State Responsibility*. Para. 1.

Law Commission (hereinafter: ILC) adopted a quasi-treaty text<sup>3</sup> designated as ILC's Draft Articles on the issue of state responsibility.<sup>4</sup> It is the very general and legally non-binding character of ILC's Draft Articles (regarding that these articles have not yet been materialised in the form of a convention or any international legal document) that accounts for the fact that in research work, ILC's Draft Articles have been ignored, nevertheless, we should take them into account as a *communis opinio doctorum* and as a summary containing the main theoretical concepts of state responsibility, which need to manifest themselves either in international customary law or in international state practices, or, in both of these. Thus, it is deemed essential that the provisions of the ILC's Draft Articles are surveyed and analysed in view of the concerned legal area parallelly to nuclear legal conventions, on the one hand, if the regulation of issues of state responsibility and liability lacks instruments of nuclear law, or, on the other hand, the governing regulation would not be able to encompass all relevant aspects of the aforementioned responsibility and liability under the framework of nuclear law.

In general, the ILC adopted the traditional *state-to-state approach*<sup>5</sup> irrespective of the increasingly emerging question of the responsibility of non-state actors, such as terrorist groups and individuals. A key question in this respect is whether under international law a state is responsible for damages or injuries incurred to another state and, if so, to what extent it bears international respon-

<sup>3</sup> As for the proof of this phrase, ILC annexed lengthy and comprehensive commentaries and the draft had been made in the dominant working style of the ILC, so these articles "had the look and feel of a treaty." See Caron, D.: The ILC Articles on State Responsibility: The Paradoxical Relationship Between Form and Authority, *American Journal of International Law* 96 (2002), 861–862. But the draft does not recommend to the General Assembly that the articles be considered for adoption as a treaty. See *ibid.* On the theoretical approaches of its form, see *ibid.* 862–866. The Resolution 56/83 (December 12, 2001) adopted by the General Assembly commends the articles to the "attention of Governments without prejudice to the question of their future adoption or other appropriate action." See Point 3 of the GA Res. 56/83.

<sup>4</sup> About the draft, see particularly Crawford, J.: *The International Law Commission's Articles on State Responsibility, Introduction, Text and Commentaries*. Cambridge, 2002. 381. Following the ILC's Draft Articles, a diplomatic conference has not been convened by the UN General Assembly to create a treaty on the basis of the ILC's Draft Articles. That was the reason for being legally non-binding instrument. At this stage, it shall have been emphasized that the ILC's Draft Articles exclusively uses the term 'responsibility' or 'responsible' even if the use of 'liability' or 'liable' would be expedient in such cases for avoiding the possible problems arising from this legally non-precise usage.

<sup>5</sup> Cf. Weiss, E. B.: Invoking State Responsibility in the Twenty-first Century. *American Journal of International Law* 96 (2002), 798.

sibility for its actions.<sup>6</sup> Generally, under public international law, if an act of any state has been wilfully and maliciously committed, or that act would have been committed in a gravely negligent manner and implies a breach of an international obligation, these facts (causal relation between cause and the result of a conduct imputable to the state as damage or harm<sup>7</sup>) would entail that state responsibility obtains, therefore, compensation and reparations shall supervene pursuant to the legal regulation of state liability.<sup>8</sup> So, firstly, the term and meaning of state responsibility shall be distinguished from state liability by means of exact concept-formation in the general area of international law (*lex generalis*) and specifically, under nuclear law (*lex specialis*).

The codification process conducted by ILC was frequently self-contradictory by reason of the departing legal thinking of the five rapporteurs, scilicet, their different conceptions deriving from their diverse backgrounds as to state establishments and legal systems. Therefore, in the domain of the problematic distinction to be made between state responsibility and liability debates often flared up, which basically influenced the fundamental approach of this subject-matter (*see*, particularly Riphagen's thoughts concerning this dilemma<sup>9</sup>). The final draft unambiguously contains only rules concerning state responsibility because of the "state's responsibility for internationally wrongful acts" phrase, which means that the draft precluded the possibility of raising liability-issues upon the interpretation of the articles, since it used the phrase of "wrongful act". The term of "responsibility" postulates the wrongful act of a state,<sup>10</sup> while the term of "liability" for injuries is attached to lawful acts. For this reason, it is generally accepted that the codification of state liability would have been the subject of a separate ILC work.

<sup>6</sup> See Jabbari-Gharabagh, M.: Type of State Responsibility for Environmental Matters in International Law. *Revue juridique Thémis* (1999) 63.

<sup>7</sup> See Article 2 of the Draft Articles.

<sup>8</sup> As an international customary norm, the Permanent Court of International Justice stated „it is a principle of international law that the breach of an engagement involves an obligation to make reparation in an adequate form.” See *Chorzów Factory Judgment*, No. 8 (1927) 21.

<sup>9</sup> See Bodansky–Crook: *op. cit.* 778.

<sup>10</sup> ILC's Draft Articles state a logical equation: conduct not in conformity with an international obligation and attributable to a state equals an internationally wrongful act resulting in state responsibility. See Bodansky–Crook: *op. cit.* 782. Cf. Article 12 of the ILC's Draft Articles.

Another cardinal problem is also deemed of considerable importance. Ago distinguished “secondary” rules from “primary” rules of obligation.<sup>11</sup> This scheme was taken over by Crawford apart from the fact that ILC had not decided to emphasize the primary rules, furthermore, it declared that “state responsibility should be dealt with within the purview of secondary rules.”<sup>12</sup>

## 1. State Responsibility in General

The international responsibility of a state manifests an ‘objective’ character, “in the absence of any specific requirement of a mental element in terms of primary obligation, it is only the act of a State that matters, independently of any intention” – pursuant to the ILC.<sup>13</sup>

The exact distinction between the notions of responsibility and liability implies two different approaches to the same problem.<sup>14</sup> In the following, for the purpose of the differentiation of the dual meaning by means of a semantic overview,<sup>15</sup> the terms of responsibility and liability must be clearly circumscribed. Nevertheless, these terms are sometimes applied without discretion to questions of liability or responsibility in manners, which indicate that the occurrence of damages or losses is not a sufficient or even a necessary basis for responsibility.<sup>16</sup>

According to the strict viewpoint of international law, however, liability and responsibility obtains, when a breach of an obligation laid down under

<sup>11</sup> Secondary rules determine the legal consequences arising out of failure to perform obligations set forth in the primary rules. Cf. *Yearbook of the International Law Commission*. New York, 1 (1974) 5.

<sup>12</sup> Cf. *Yearbook of the International Law Commission*. United Nations, New York, 1 (2001) 106.

<sup>13</sup> Cf. *ibid.* 249.

<sup>14</sup> But the traditional principles of state responsibility could merge with the concept of state liability, particularly in instances such as ultra-hazardous activities where states must meet such a strict standard of care that for all practical purposes they will be responsible (and so, liable) for any activity leading to harm. Cf. Hunter, D.–Sommer, J.–Vaughan, S.: *United Nations Environment Programme. Concepts and Principles of International Law: An Introduction*. New York, 1994.

<sup>15</sup> Cf. Horbach, N.: The Confusion about State Responsibility and Liability, *Leiden Journal of International Law*, 4 (1991) 47–74. English and German–opposed to the French (*responsabilité*) and Hungarian (*felelősség*)–language draw a distinctive word-form between the two notions (*responsibility* and *liability*–*Haftung* and *Verantwortlichkeit*).

<sup>16</sup> See *Fourth Report on State responsibility*. Para. 30.

international law has occurred, which per se does not need to involve the requirement of the element of either negligence or malice.<sup>17</sup>

As for the standpoint of ILC, as it is manifest in the legally non-binding draft in the abstract, every internationally wrongful act of a state entails the international responsibility of that state (according to Article 1 of ILC's Draft Articles). On the other hand, the term of "state liability" does not necessitate that the facts of the case of an internationally wrongful act of a state obtains. Subsequently, every act of a specific state, regardless of its possible legal grounds, can effectuate the liability of the state irrespective of the fact whether it has caused transboundary damages.<sup>18</sup>

The international responsibility of a state implies its duty to make reparations for the damages, which result from a failure to comply with its international obligations—as it was everlastingly drafted in the 1930 Hague Conference on State Responsibility (and has prevailed thence). The term 'responsibility' was based upon the general rule of international law that states are legally accountable for breaching international obligations imposed on them. Former determination refers to the so-called 'primary obligation' under international law, which is formulated under Article 1 of ILC's Draft Articles as follows:

*"Every internationally wrongful act of a state entails the international responsibility of the state."*<sup>19</sup>

Consequently, the rules of state responsibility stipulate and determine whether international obligations have been breached,<sup>20</sup> moreover, an internationally

<sup>17</sup> In the early literature, *Hardy* regarded that fault-based liability had been always required in opposition to the argumentation that state had automatically incurred responsibility for whatever it had been done, so it appeared preferable to say that liability is in all cases to be determined by international law – or rather according to the legal literature of the 50's and 60's. Cf. *Hardy, M.: International Protection against Nuclear Risks. International and Comparative Law Quarterly* 10 (1961) 755.

<sup>18</sup> As for *de la Fayette's* position, she thought that 'responsibility' is to prevent damage (to take care of control of a person, thing, installation, activity), while 'liability' almost exclusively concentrates for compensating the victims (obligation to repair the damage or to compensate the innocent victim). See *de la Fayette, L.: Towards a New Regime of State Responsibility for Nuclear Activities. Nuclear Law Bulletin* 50 (1992) 21.

<sup>19</sup> As for the imperative conditions of 'internationally wrongful act', cf. Article 2 of the Draft Articles.

<sup>20</sup> Breach of an international obligation is defined as "an act (...) not in conformity with what is required (...) by that obligation"—as the ILC's Draft Articles state. See *Crawford: op. cit.* Note 1, Article 12. The breach of an international obligation entails two types of legal consequences. Firstly, it creates new obligations for the breaching state, principally, duties

wrongful act entailing state responsibility through the breach of an obligation has to be followed by sanctions (such as restitution, reparation, compensation, therefore, as to the ensuing consequences, no relevant difference between the notions of responsibility and liability obtains).

Traditional principles of state responsibility may merge with state liability that arises from lawful acts, particularly in instances such as ultra-hazardous activities, in the case of which states need to proceed with such a strict standard of care that for all practical purposes they will be “responsible” for any activity leading to (transboundary) harm.<sup>21</sup>

## 2. State Responsibility in the Area of Nuclear Law

Under international law, states are responsible for damages arising from the nuclear installations operating under their authority or control, because the absolute liable operator<sup>22</sup> does not function independently of governmental control.<sup>23</sup>

Generally, as it has been expressly pointed in the foregoing out, the concept of responsibility in both branches of nuclear law and of environmental law derives from unlawful acts, principally from an intentional international breach of obligation. So, the applicability of the term of ‘state responsibility’ requires the effective breach of obligation by states, whereupon a nuclear accident or radiological emergency occurs and the damages and losses are ascertainably the results of breaching obligations (direct causality is necessary between the breach, as a cause and the damage, as an effect). As an outcome of this statement, state responsibility shall entail an obligation for the wrongdoing state to make full reparation<sup>24</sup> for the internationally wrongful act in the form of restitution,<sup>25</sup> compensation<sup>26</sup> and satisfaction.<sup>27</sup>

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of cessation and non-repetition (cf. Article 30 of the ILC’s Draft Articles) and secondly, a duty to make full reparation (cf. Article 31 of the ILC’s Draft Articles).

<sup>21</sup> See Hunter, D.–Sommer, J.–Vaughan, S.: *Concepts and Principles of International Law: An Introduction*. New York, 1996.

<sup>22</sup> The notion of ‘operator’ incorporates the licensee or other designated or recognized entity. The duty of designation or recognition is within the competence of the national government or the legislator body.

<sup>23</sup> See de la Fayette: *op. cit.* 18.

<sup>24</sup> Cf. Article 31 of the ILC’s Draft Articles.

<sup>25</sup> Cf. *ibid.* Article 35.

<sup>26</sup> Cf. *ibid.* Article 36.

<sup>27</sup> Cf. *ibid.* Article 37.

Article 34 of ILC's Draft Articles reads as follows:

*“Full reparation for the injury caused by the internationally wrongful act shall take the form of restitution, compensation and satisfaction, either singly or in combination, in accordance with the provisions of this (Reparation for injury under Chapter II—the author) Chapter.”*<sup>28</sup>

In the area of nuclear law, the issue of state responsibility for nuclear damages and for breaching obligations remains in the background compared to the concept of state liability. Its reasons are multifarious.

Firstly, nuclear accidents and radiological emergencies with transboundary effects are not direct consequences of breaching obligations committed intentionally by states on the whole (e.g., 1986 Chernobyl disaster).

Secondly, in addition to the previous paragraph, the damages and losses including the loss of human life and huge amounts of damages prevent the states from breaching obligations framed by international instruments. As a rule, the financial consequences (determined under conventions and other instruments) of a nuclear accident or radiological emergency caused by a state by breaching an obligation are severe for states. It is also for that reason that the relevance of state responsibility falls behind the relevance of state liability, when the cause of contingent damages is a lawful act as a rule.

Thirdly, ‘liability’ is classified (fault-based, strict or absolute, exclusive, vicarious, residual, etc.) with regard to the extent of the negligence of a state that effected damages. In the case of state responsibility, similar distinction cannot be made, since a state either committed or did not commit an internationally wrongful act that substantiate claims for reparation. In the latter case, the state shall not be responsible for its action.

Finally, while ‘liability’ is circumscribed within a refined system defined at an international level (such as the Paris and Vienna Conventions on liability, etc.), the circumscription of ‘responsibility’ has been accomplished in a scattered manner in various separate international instruments. These instruments will be discussed in the following.

<sup>28</sup> But it could be far from easy to hold another state effectively responsible for a breach of a norm of international (environmental) law. Consequently, the injured state has the burden of proof that the responsible state has breached an international obligation.

2.1. *The appearance of the term of 'state responsibility' under several significant documents of nuclear law*

The international community followed the evolution of the concept of and rules pertaining to 'state responsibility' within the area of nuclear law for a long time. Nevertheless, no document of the special sub-systems within the framework of nuclear law contains a specific and legally binding regulation of the special nuclear (and general) responsibility of states that distinguishes cases of responsibility from these of liability.

In general, we need to point out that in the area of nuclear law the state has primary responsibility for emergency preparedness in the event when radioactive materials are not under the control of the entity in charge, but, for example, they disappear or are abandoned in the state illicitly.

The tragedy at the Chernobyl Nuclear Power Plant in 1986 motivated the entire international nuclear community to provide for guarantees that countries would be well prepared in the future to manage (by means of the establishment of standard emergency preparedness and post-emergency management programmes) the physical, psychological and financial consequences of severe nuclear accidents. Therefore, it was the Chernobyl accident of 1986 that aroused the international community and the legislative organs, hence the regulation process, which also encompassed the definition of the concept of state responsibility in re the horrific transboundary effects of that "milestone accident", uniformly commenced. It was recognised that civil responsibility (liability) per se cannot prevent or remedy the humanitarian and environmental consequences of nuclear damages.<sup>29</sup>

The first signs of this change in the approach were the reconsideration and revision of the effective legal framework, mainly in the area of liability, which we will discuss later. Other impulses also referred to the necessity of the adoption of new regulations in specific areas that were highlighted by the mournful experiences of the Chernobyl accident.<sup>30</sup> The new regulations were designated

<sup>29</sup> Pursuant to Xue Hanqin's opinion, the effect of the Chernobyl accident was the discrepancy between theory and practice that raised several questions, e.g. what kind of responsibility a state should bear under international law to prevent and remedy damage caused to other states. On further questions with attributed relevance by Hanqin, cf. Hanqin, X.: *Transboundary Damage in International Law*. Cambridge, 2003. 2.

<sup>30</sup> Strictly speaking, these intentions were not the very first endeavours occurred within international and national level. Following the 1979 Three Mile Islands accident, there was a need to create a framework for reporting and mutual assistance in nuclear accidents. But the real breakthrough had been practically succeeded after 1986 Chernobyl accident. Cf.



to remedy the defects in significant rules pertaining to the areas noticeably concerned in the accident.<sup>31</sup>

The appearance of the term of 'state responsibility' (in the concerned conventions under nuclear law discussed thereafter) indicates that the respective obligations of states deriving from the conventions were defined with respect to their differing character.

#### 2.1.1. The concept of state responsibility under the Convention of 1986 on Early Notification of a Nuclear Accident and under the Convention of 1986 on Assistance in the Case of a Nuclear Accident or Radiological Emergency

These instruments were adopted in response to the Chernobyl accident in 1986, so that they required the contracting states to notify early and immediately the potentially affected states and IAEA about the accident, which needs to be followed by assistance on the part of the installation state or of the responsible state. The new global recognition of nuclear danger (an accident somewhere is an accident everywhere) motivated the states to establish obligations under two separate conventions concerning prompt and necessary arrangements in the event of a nuclear accident or radiological emergency.

Upon the consideration of these documents, it can be clearly stated that the problem of state responsibility is crucial in their scope of application. The requirements of notification and assistance are primarily not typical issues of liability, however, these dual obligations have de facto relevance in re-responsibility under nuclear law. Actually, damages and losses may arise from the breach of the obligations of notification<sup>32</sup> and assistance,<sup>33</sup> which shall

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ElBaradei, M.–Nwogugu, E.–Rames, J.: International Law and Nuclear Energy: Overview of the legal framework. *IAEA Bulletin* 37 (1995) 16–25.

<sup>31</sup> Cf. Schwartz, J.: Emergency Preparedness and Response: Compensating Victims of a Nuclear Accident. *Journal of Hazardous Materials* 111 (2004) 89.

<sup>32</sup> Article 2 of the Early Notification Convention establishes the obligation in respect of the notification and information. According to the Article 2, *in the event of a nuclear accident*, the state referred to in that article *shall forthwith notify*, directly or through the IAEA, those States which are or may be physically affected and the Agency of the nuclear accident, its nature, the time of its occurrence and its exact location where appropriate. Furthermore, it promptly *provides the states*, directly or through the IAEA, and the IAEA with such available information relevant *to minimizing the radiological consequences in the states*.

<sup>33</sup> Paragraph 1 of Article 1 of the Assistance Convention provides general provisions (no legal obligations) for states *to cooperate between themselves and with the IAEA in accordance with the provisions of the convention to facilitate prompt assistance in the*

establish the responsibility and liability of the respective state for compensation to victims of another state, in which damages and losses are unambiguous consequences of the failure to comply with the dual aforementioned obligations (as an issue of liability). On the other hand, we need to emphasise the issue of responsibility in the scope of the following argumentation.

The obligation of notification under the *Early Notification Convention* is irrespective of the damages and losses caused by the accident or emergency in the event of the omission of notification. Thus, a breach of an obligation (or obligations) on the part of a state can be established, if the facts of the case of an omission (regardless of its cause, such as unintentional negligence or intentional character) obtain, therefore, that act shall qualify as a wrongful and intentional act of a state, which shall entail the international responsibility of a state. In that case, other aftermaths, such as damages, financial consequences and pecuniary losses, which are essential for the establishment of liability, have been disregarded.

Merely one requirement may tinge the notification obligation, which further defines the applicability of the responsibility of a state, namely, the information to be provided pursuant to Article 2 shall contain determined data as concurrently available to the notifying state.<sup>34</sup>

As for the *Assistance Convention*, the main provisions and conditions are akin to the rules delineated above in the discussion of the relevant rules of the Early Notification Convention. The definition of state responsibility is designated to provide an international framework for the comprehensive direction, control, coordination and supervision of the assistance<sup>35</sup> and for the promotion of prompt assistance by states and IAEA in the event of a nuclear accident or radiological emergency.

However, the Assistance Convention clearly differs from the Early Notification Convention, so far as Articles 1 and 2 of the Assistance Convention substantiate no legal obligation, since the objective of the Assistance Convention is merely the establishment of a framework for the facilitation of the provision of assistance by a state to another state (which accounts for a lack of state responsibility in re concrete, specific assistance mechanisms). Therefore, the Assistance Convention is also a framework agreement designed to establish

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*event of a nuclear accident or radiological emergency to minimize its consequences and to protect life, property and the environment from the effects of radioactive releases.*

<sup>34</sup> On the detailed enumeration, cf. Article 5 of Early Notification Convention.

<sup>35</sup> Cf. Article 3 (a) of the Assistance Convention.

a general basis for mutual assistance in the event of a nuclear accident or radiological emergency.

As opposed to the Early Notification Convention, the Assistance Convention applies the term of 'responsibility'. It expressly stipulates that the direction and control of assistance are the duties (the relevant responsibility) of the state concerned, since in the absence of that rule, the international responsibility of a state could not be established.

#### 2.1.2. The concept of state responsibility under the *Convention of 1994 on Nuclear Safety*

The Convention of 1994 is considerably general so far as the issue of responsibility is concerned. In accordance with its purpose, its provisions are neither peremptory, nor sanctioning, but typically incentive (quoting the reviews under its effect), which may complicate and supersede the regulation of issues related to responsibility. For that reason, issues of the responsibility of states are closely and strictly attached to the breach of basic obligations regulated under Articles 4 and 5.

As opposed to the missing conception of state responsibility, the concept of the responsibility of the license holder is defined under the Convention, so that the unambiguous duty of the license holder is established, since it has primary responsibility for the safety of the nuclear installation under Article 9.

As Paragraph 2 of Article 21 stipulates:

*"If there is no such licence holder or other responsible party, the responsibility rests with the Contracting Party which has jurisdiction over the spent fuel or over the radioactive waste."*

Accordingly, states have *subsidiary* responsibility overshadowed by the primary responsibility of the license holder. Such a definition of the responsibility of states has been influenced by the general attitude of states supported by the following rule: "whoever was responsible for the generation of the waste should bear the responsibility for its disposal."

Therefore, 'responsibility' under nuclear law is construed as a relevant, but subsidiary attribute of the state. Relevant, because during the previous decades, states have recognized that they bear responsibility at an international level and have concluded international agreements on supplementary compensation, if the means of the operator are exhausted.

The primary elements underlying state responsibility have been principally codified in the area of international environmental law related to transboundary

damages caused by states. In my view, and let me refer to the subject-matter of the present study, the damages deriving from the breach of a concrete instrument of environmental law and the injurious effects of nuclear accidents or radiological emergency correlate. Strictly speaking, the same criteria prevail in both areas.

Generally, for the establishment of the responsibility of a state, four basic elements need to be available. Thus, if the following criteria are uniformly attained in the event of a nuclear accident or radiological emergency causing damages and losses, the state shall be responsible for their transboundary effects, which supervene in the territory of another state. All of the following criteria should be construed in line with the general rules of public international law and with the legally non-binding rules of ILC's Draft Articles.

*Criterion 1:* Transboundary environmental damages or losses must result from a violation of international (nuclear) legal instruments.<sup>36</sup> The damages or losses must be direct consequences of a nuclear accident or radiological emergency. Accordingly, the causality between the accident or emergency (cause) and the damages or losses (effect) can be established. External influences are not admitted to interfere so that the responsibility of a state can be applicable.

*Criterion 2:* A state is responsible both for its respective activities and for the activities of private corporations or individuals under its authority or control. Thus, even if a state is not polluting directly, the state can still be held responsible for the failure to stop or control pollution by other entities. According to this rule, states may be held responsible for the failure to enact or enforce the necessary environmental law, to terminate dangerous activities, or, to sanction violations.

*Criterion 3:* No justifying circumstances are admitted, such as consent by the affected state or an intervening cause, such as an act of God (*vis major* or *force majeure*). That criterion is not so relevant under nuclear law, because of the extreme contingency of damages, so the affectedness of a state in whose territory the transboundary effects appear is a considerably rare status quo (and that kind of affliction is scarcely ever intentional).<sup>37</sup>

*Criterion 4:* Damages must be "significant", which may entail serious problems of proof and quantification. In the area of nuclear law, damages may affect individuals, property and the environment in several states. Damages caused by radiation may not be immediately and easily recognised. Furthermore, even at

<sup>36</sup> Cf. the provisions of Article 1 of the ILC's Draft Articles. See further Crawford: *op. cit.* 77–80.

<sup>37</sup> Cf. the provisions of Article 10, Article 16–18, Article 20 and Article 23 of the ILC Draft Articles. See further Crawford: *op. cit.* 116–120, 148–158, 163–165 and 170–173.

nuclear power plants, at which the highest safety standard has been guaranteed, the occurrence of nuclear and radiological accidents cannot be completely excluded. That constitutes the unique feature of transboundary effects caused by nuclear accidents or radiological emergency.

The term ‘state responsibility’ appears in a significant but subsidiary way within the nuclear scope. Significant, because in the previous decades, states have recognized that they carry responsibility at international level too, and have also concluded international agreements on supplementary compensation if the means of the operator are exhausted.<sup>38</sup>

### 3. State Liability in a General Context

The term of ‘liability’ is applied in cases where damage or loss was incurred as a result of an activity that had been conducted neither in breach of an international obligation, nor in breach of the states’ due diligence obligations (lawful act that involves risks and transboundary damage<sup>39</sup>). ILC’s Draft Articles clarify the uncertainties persisting in connection with the existence of a breach of an international obligation. Article 12 reads as follows:

*“There is a breach of an international obligation by a State when an act of that State is not in conformity with what is required of it by that obligation, regardless of its origin or character.”*

As ILC’s codification work clearly demonstrates, a State can be liable even for acts that are perfectly lawful, but in the event of injurious consequences, they can entail liability.<sup>40</sup> As opposed to State responsibility, which arises exclusively from acts prohibited by international law, the facts of the matter of the international liability of a State may arise from both lawful and unlawful acts.

The main distinctive characteristics, which are markedly separated in pursuance of the delimitation of the concept and content of these regimes, consist in the followings:

<sup>38</sup> See Pelzer, N.: *Modernizing the International Regime Governing Nuclear Third Party Liability*. Montpellier, 2007. 10.

<sup>39</sup> The ILC’s activities and the Draft Articles within this field published under the title of “*International liability for injurious consequences arising from out of acts not prohibited by international law*”.

<sup>40</sup> Cf. *Yearbook of the International Law Commission*. New York, 1980. 246.

- a) In a general context, the term of ‘responsibility’ encompasses the omission of acts that cause damage attributable to a State under international law and these acts (or omissions) constitute severe breaches of obligations.
- b) State liability entails adequate compensation for damage suffered by victims (liability for pecuniary compensation obtains, even if inadequate resources for compensation are available at the operator’s disposal). Rules of State liability for harmful and transboundary consequences of e.g. nuclear activities are construed in a broad scope in comparison with the restricted field of State responsibility.

Accordingly, rules of liability for acts not prohibited by international law are irrespective of whether the activity was faulty or lawful, they emphasise the harm, rather than the conduct.

#### 4. State Liability in the Area of Nuclear Law

In a general scope, pursuant to various documents of international law including Conventions, State liability establishes a legal relationship between the State as perpetrator of the internationally wrongful act and the injured State(s).

During the debates and the legislation process within the framework of the Sixth Committee of the UN General Assembly in the 1990s, several possible options were dealt with in the work of the Committee based upon the idea that liability ensues from significant transboundary harm and gives rise to liability for reparation.<sup>41</sup> It was generally acknowledged that the residual liability of the State was essential in situations in which the primarily liable operators did not have sufficient financial resources to provide adequate compensation to the victims of injuries caused by transboundary damages.<sup>42</sup> The range of various classes of liability specified in the Committee’s position was different from the customary classification of the fault-based, strict, exclusive liability in pertinent Conventions and legal history. Absolute liability and the channelled liability of (a) State(s) were extinguished, since they were only applicable in the regime of civil liability, where exclusively the operator was responsible for activities causing transboundary effects, including nuclear accidents or radiological emergency for the duration of the operator’s control over those

<sup>41</sup> See *International Liability for Injurious Consequences arising out of Acts Not Prohibited By International Law*. at <http://www.un.org/law/1990-1999/>.

<sup>42</sup> See *James Baxter’s* position from the Sixth Committee, *Press Release GA/L/2871* 20th Meeting (PM) 20 October 1995. 7.

activities.<sup>43</sup> According to the objectives of ILC, residual (subsidiary) and joint or multiple liability shall govern the regime in which States compensate victims not satisfied by the operator (after the exploitation of the insufficient subsidiary compensation fund) on the basis that the State concerned has failed to meet its obligations and a causal relation between that failure and the damage caused obtains.<sup>44</sup>

Providing compensation for victims on a residual basis was considered, since States are deemed liable to remedy the defects of a civil liability regime according to the specific restrictions related to the tiers of compensation. The required compensation should be raised from public funds, when the claim for damages resulting in the operator's liability would not be covered by the available amount for the ensuing damages and losses, therefore, the requirement of compensation would not be met. When the liability of the operator had been legally exclusive and absolute, the real and effective guarantees to pay compensation for damages were missing from legal instruments related to the operator's liability within the regime of civil liability. In response to that problem and contradiction prevailing formerly, the concept of State liability was formulated.

In the scope of the basic principles of liability related to nuclear energy, the explicit expression of State liability has not been formulated. Nevertheless, relevant steps have been taken to frame the liability of States within the scope of obligations. E.g., the 1963 Brussels Supplementary Convention was adopted for the admission of the provision of supplementary compensation from public funds. This measure exceeded the scope of the regulation of civil liability and foreshadowed further support and compensation to be secured by States. Consequently, it can easily supervene that a State is not legally liable for the damage, but as opposed to this unambiguous fact, it has the duty to compensate the victims through its public funds and resources regardless of the fact whether it carried out activities that could cause damages. At that time, the term of 'State liability' was not introduced during the discussions, which impeded the appearance and evolution of this notion.

Nevertheless, during the previous decades (especially in the 1990s) a change of approach supervened, since the term of 'State liability' was incorporated into pivotal provisions of the Conventions. The 1997 Vienna Convention and the 1997 Convention on Supplementary Compensation were the sequels of the recognition that in the event of nuclear accidents and radiological emergency

<sup>43</sup> Cf. *International Liability for Injurious Consequences arising out of Acts Not Prohibited By International Law*. at <http://www.un.org/law/1990-1999/>.

<sup>44</sup> See in details *Yearbook of the International Law Commission*. 1994, Vol. II. 155-158.

international State liability obtains, furthermore, it was frequently alluded to in the context of the international civil liability regime.<sup>45</sup>

Finally, the last relevant amendment related to the liability regime based upon the Paris and Vienna Conventions was adopted in 2004. The Contracting Parties signed the Amending Protocols in order to ensure that the Paris Convention was more in accordance with the Conventions amended or adopted in 1997 under the auspices of the IAEA. The main objective of the 1997 Protocol to Amend the Vienna Convention was the intention of the provision of more compensation to more victims in the event of a nuclear accident with a graver effect than the one as conceptualised in the original and later amended regime. Thereby, the mechanism and the procedure were still in effect, but the definition, the measures and the requirements of effectiveness changed (including the amount of compensation), which were the most serious steps taken as to purposes, which was to provide the world community with the opportunity to deal legal liability and compensation for nuclear damage through a free-standing global regime.

#### *4.1. Role and relevance of the Price-Anderson Act in the field of nuclear energy*

The epoch-making *Price-Anderson Nuclear Industries Indemnity Act* (hereinafter: Price-Anderson Act or Act) constitutes federal law in the United States (passed in 1957 by the Congress pursuant to Chapter 8 of the U.S. Constitution amended several times, last time in 2005 for a 25-year-period), which has been governing liability issues in re non-military nuclear facilities in the territory of the United States.

This national (federal), legally binding law (the first comprehensive nuclear liability law in the world adopted by domestic legislation) preceded later Conventions<sup>46</sup> on nuclear liability and was declared<sup>47</sup> to have promoted the establishment of a unique private insurance scheme<sup>48</sup> and the indemnity of the U.S. Government (that demonstrates the dichotomy of civil and State liability)

<sup>45</sup> Cf. *The 1997 Vienna Convention on Civil Liability for Nuclear Damage and the 1997 Convention on Supplementary Compensation for Nuclear Damage—Explanatory Texts*. IAEA International Law Series No. 3, Vienna, 2007. 18.

<sup>46</sup> Cf. The so-called “grandfather clause” in the Article 2 of the Annex attached to the *1997 Convention on Supplementary Compensation for Nuclear Damage*.

<sup>47</sup> As to proof of this statement, see the U.S. Supreme Court’s conclusions in the case of *Duke Power Co. v. Carolina Environmental Study Group*, 438 U.S. 59 (1978).

<sup>48</sup> See in details Quattrocchi, J.: *Nuclear Liability Insurance in the United States: An Insurer’s Perspectives*. In: *Reform of Civil Nuclear Liability*. Budapest, 1999. 383–398.



in order to compensate the persons who had been injured in nuclear accidents within or outside the United States.

American literature on law almost uniformly state that this norm aimed to create the so-called *vicarious liability* of the State (the indemnity of the U.S. Government for nuclear liability paralleled by the system of private insurance), whilst pursuant to the Act, in the event of a major accident, all nuclear facilities would be required to contribute, irrespective of the place where the accident occurred. If certain operators would decline to contribute, the State would intervene to ensure that financial resources would be made available.<sup>49</sup> On the score of the Act, its purpose is to provide coverage for “anyone liable” and for “any legal liability arising out of or resulting from a nuclear incident”, but the burden of proof lies with the claimant.<sup>50</sup> The Congress of the United States supported the idea that an international fund will be set up with the exclusive objective of compensation for transboundary damages and losses.<sup>51</sup>

The Act based on an insurance scheme (not fault-based as within system of the Common Law) establishes a system in which the payment of 10 billion USD shall be subject to the liability of the industries (operator) as opposed to the basic *civil liability approach*. Any claims exceeding the limit of 10 billion USD shall be covered by the U.S. federal Government, specifically, by the Energy Department (accordingly, *vicarious liability* figures as a type of State liability).<sup>52</sup> In the event of a nuclear accident causing damages in excess of the limits of the Act, the U.S. Congress shall take further actions, e.g., insurance of appropriate funds. U.S. nuclear companies, nuclear industries are relieved of any liability beyond the limit of the amount of indemnity for any nuclear accident, including radiation or radioactive releases, regardless of fault or cause and causality.

By the adoption of the Price-Anderson Act with the annexed amendments, the U.S. Congress encouraged private participation (private insurance companies, operators) in the field of nuclear energy, while it also provided compensation from public funds (Federal, State liability).

If we accept the aforesaid opinion on the initially and basically challenged, controversial, dual-faced mechanism, the Price-Anderson Act could serve as a model for the endeavours of regulation not only on a national, but also on an

<sup>49</sup> See *Reform of Civil Nuclear Liability... op. cit.* 220.

<sup>50</sup> This is the so-called “omnibus” feature of the U.S. system based upon Price-Anderson Act what is often referred to as “*economic channelling of liability*” instead of the term “legal channelling”.

<sup>51</sup> See *Reform of Civil Nuclear Liability... op. cit.* 221.

<sup>52</sup> Cf. *ibid.* 252–253.

international level. But this dual-faced mechanism has not completely attained its purpose, because of the unwillingness of taking federal financial measures, consequently, the traditional civil liability regime has persisted and prevailed. De la Fayette pointed out the contradictory situation: “although, the U.S. is a strong opponent of State liability for transboundary nuclear damage, its nuclear liability law, scilicet, the Price-Anderson Act is based upon a State liability regime.”<sup>53</sup> Nevertheless, the legislator’s pursuit per se to construe the Act does not necessarily verify the fact that the Act intended to establish and introduce the term and doctrine of State liability.

#### *4.2. The Pre-Chernobyl-period, the 1986 Chernobyl accident and its consequences in the nuclear liability regime*

Preceding 1986, no real experience of a nuclear accident with relevant transboundary effects was available to urge the States to consider (or reconsider) the relevant issues of responsibility regimes in the examined field. In the 1960s, the IAEA Board of Governors adopted a draft multilateral agreement on emergency assistance, but this initiative was deemed to be unfeasible. It must be mentioned that at that time neither the *1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy* (hereinafter: Paris Convention), nor the *1963 Vienna Convention on Civil Liability for Nuclear Damage* (hereinafter: 1963 Vienna Convention) was in effect.<sup>54</sup> Thus, before 1968 (when the Paris Convention entered into force) no relevant multilateral instrument governing problems of nuclear law obtained with special regard to the issues of responsibility and liability.

The Paris Convention was the first international instrument dealing with nuclear (third party) liability involving exclusively Western states within the framework of the OECD. Whereas, the Vienna Convention was open for accession by all States, but worldwide adherence was not achieved (it is a thought-provoking fact that its entry into force took 14 years, although, only 5 ratifications were required).

Subsequently to the entry into force of both the Paris Convention and the Vienna Convention, a nuclear accident intrigued the attention of the international community. After the 1979 Three-Mile Island accident in Pennsylvania, USA (without human victims) the intention to cooperate on an international

<sup>53</sup> See de la Fayette: *op. cit.* 24.

<sup>54</sup> The Paris Convention entered into force in 1 April 1968, while the 1963 Vienna Convention entered into force in 12 November 1977.

level remarkably increased,<sup>55</sup> but no significant breakthrough (in comparison with the aftermath of the 1986 Chernobyl accident) ensued.

As a matter of fact, it was the 1986 Chernobyl accident with its transboundary consequences<sup>56</sup> that highlighted most of the defects in law in the concurrent effective international instruments and therefore alerted the international community to finally arrive at an understanding of the need to reinforce the international framework of regulations, so that the consequences of nuclear accidents via timely and adequate compensation could be mitigated.

The Chernobyl disaster demonstrated the fact that a nuclear accident may cause unprecedented damage of an extreme dimension, that damage may be caused in regions far beyond the territory of the installation State and that in addition to inevitable transboundary damage to individuals, property and to the environment irrespective of borders, to the member States of the Paris and the Vienna Conventions, as well. Owing to the well-known fact that the former Soviet Union (the installation State) was not a Party to either of the respective Conventions, the issues of due reparation mechanisms in line with issues of responsibility and/or liability were disregarded. Nonetheless, it has to be mentioned that both liability regimes set the upper limit of the operator's liability at 5 million USD, thus, in case we assume that the Soviet Union would have been a Party to either of the liability regimes, the contingent amount of compensation would have been insignificant, bearing the considerable value of harmful transboundary effects in mind.

The awakening of international concern (as a result of the aftermaths of the Chernobyl accident) within the framework of the IAEA and other organisations foreshadowed the impending reform of the nuclear liability regime. Two issues were raised promptly after the Chernobyl disaster: firstly, the requirement of the wide international recognition of the nuclear liability regime, secondly,

<sup>55</sup> On the purposes arising after the Three Mile Island accident, see Rautenbach, J.–Tonhauser, W.–Wetherall, A.: Overview of the International Legal Framework Governing the Safe and Peaceful Uses of Nuclear Energy—Some Practical Steps. In: *International Nuclear Law in the Post-Chernobyl Period*. Paris, 2006. 7–36.

<sup>56</sup> The accident had serious detrimental effects upon human health, property and the natural environment and damage was suffered in several neighbouring countries and in some cases, far beyond. See Schwartz, J.: International Nuclear Third Party Liability Law: The Response to Chernobyl. In: *International Nuclear Law in the Post-Chernobyl Period*. *op. cit.* 37.

the imperative to make the regime adequate to cope with the transboundary consequences of a grave nuclear accident.<sup>57</sup>

Finally, after the Chernobyl accident, the requirement of the provision of supplementary funding at an international level aroused renewed concern. At that time, it was deemed imperative to establish a new international instrument of State liability for transboundary damage, which complemented civil liability Conventions and provided a framework for a comprehensive nuclear liability regime.<sup>58</sup>

#### 4.3. *State liability vs. civil liability*

From a highly general viewpoint, State liability consists in a liability for damages caused to another State according to international law, while civil liability implies the liability of a natural or legal entity for damages caused to another natural or legal entity on grounds of national law.

The concerned regimes basically converge, since ‘State liability’ arises from transboundary effects, which create inter-states legal relations, in which the rules pursuant to special, supplementary principles and provisions differ from the rules of civil liability regimes based upon the distinction between State and civil liability. For instance, civil liability regimes are divided into separate branches pursuant to the classification of liability, whereas, within the scope of (*residual*) State liability, similar classification is considered to be redundant (*en passant*, the so-called *vicarious liability* could be mentioned in re State liability).

This can be substantiated by the role of public international law within the domain State liability, as opposed to the role of the civil law regime in the domain of civil liability. While civil law, as a rule, distinguishes various forms of liability (the classification derives from the character of civil law), public international law establishes merely two categories (responsibility and liability, in the regimes of which no further divisions obtain, since even this separation is ambiguous).

The problem in 1961 consisted in answering the question of “who shall bear the loss in the event of harm?”, which was fundamental to all questions of responsibility. On a national level four entities could be made accountable: the manufacturer or supplier, the operator, the State and members of the general

<sup>57</sup> Cf. *The 1997 Vienna Convention on Civil Liability for Nuclear Damage and the 1997 Convention on Supplementary Compensation for Nuclear Damage—Explanatory Texts*. IAEA International Law Series No. 3, Vienna, 2007. 17.

<sup>58</sup> See *ibid.* 62.

public who incurred the injury.<sup>59</sup> Currently, international legal instruments almost exclusively set out from the generally accepted approach of the operator's absolute liability (civil liability) pursuant to effective nuclear liability Conventions, which regulate liability in respect of third parties under international law, since the regulation is conceptually analogous to liability for activities involving increased danger under national laws of States.<sup>60</sup>

However, after the 1986 Chernobyl accident, it was indisputable that the civil liability regime was seriously deficient and needed rectification and that States needed to make a public commitment to nuclear safety including the prevention of accidents and the mitigation of consequences.<sup>61</sup> The system of civil liability abounded in fundamental flaws, therefore framing a new Convention on State responsibility for nuclear activities was inevitable, with special regard to safety, accident prevention and response to emergency.

The fundamental underlying idea of the subsequent regulatory work derived from the general recognition that exclusively sufficient financial resources made available for the State could ensure the compensation of victims of an accident of such a scale.<sup>62</sup> Although, law-making was committed to the aforementioned recognition, the final outcome of the debates consisted in the rejection of an express State liability regime, instead, the civil liability regime was reinforced via resources from the States, which were channelled to public funds.<sup>63</sup> That mechanism underlay the 1997 Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (*see*, Paragraph 2 of Article 7 of the Protocol) but, of course, that step could not even mean the express acceptance of the term of 'State liability' in lieu of the prevalent civil liability.

The objective of ensuring compensation from the resources of States (in re the residual amount that could not be covered by the operator's limited amount) is formulated under Compensation Conventions (*see*, Amendments of the 1963 Brussels Supplementary Convention to the Paris Convention and the 1997 Convention on Supplementary Compensation). That also implies the expectation of the submission of uniform claims based on the so-called three compensation tiers (mainly in the context of 1963 Brussels Supplementary Convention, *see*,

<sup>59</sup> Cf. Hardy: *ibid.* 747.

<sup>60</sup> See Lamm, V.: The Reform of the Nuclear Liability Regime. *Acta Juridica Hungarica* 40 (1999), 173.

<sup>61</sup> See de la Fayette: *op. cit.* 7.

<sup>62</sup> Cf. Lamm: *op. cit.* 174.

<sup>63</sup> See *ibid.*

Paragraph b) of Article 3).<sup>64</sup> Nevertheless, the three-level mechanism discussed hereinafter (with special regard to the third tier) does not invoke the term of ‘State liability’, but it is considered as a first step taken in the direction of the process aiming to restrict the operator’s absolute liability and to simultaneously increase the role of state liability.

#### *4.4. The concept of liability under the regime of the Paris Convention (‘Paris regime’)*

In the event a nuclear accident supervenes in the territory of a State Party to the Paris Convention and damage or loss is unanimously caused in another State, which is also a Party to Paris Convention, the provisions of the Paris Convention will be applicable.

According to Articles 3, 4 and 5, the Paris Convention establishes the maximum liability of the operator irrespective of the commission of an error, the liability for compensation shall be covered by insurance or other financial security, while “*no other person shall be liable for damage caused by a nuclear incident*” as Article 6 provides. Subsequently, the term of State liability has been excluded from its domain, therefore, the Paris Convention should be ignored in our discussion by reason of the establishment of the operator’s liability in the general scope of the Convention (entirely civil liability regime). As to proof of this characterization, liability under the Paris Convention is *channelled to the operator* of the specific nuclear installation, with no regard to whether causality obtains between the cause as the operator’s fault and the damage. So that these strict and financially effective rules pertaining to the operator’s liability are counterbalanced, the focal and substantial provisions of the liability regime stipulate time limitation for the submission of claims and limitation of the amount of liability, which narrow the scope of the absolute liability of the operator.

Within the purview of the Paris Convention, the rudimentary purpose was the ensure that in the event of a nuclear accident in a State, adequate compensation shall be made available for victims in the Installation State as well as in affected States. That mechanism does by no means demonstrate the tangible duty or obligation of States, however, States have assumed responsibility to establish an adequate legal regime (in accord with the norms of international

<sup>64</sup> Cf. Dussart-Desart, R.: The Reform of the Paris Convention on Third Party Liability in the Field of Nuclear Energy, and of the Brussels Supplementary Convention: an Overview of the Main Features of the Modernisation of the Two Conventions. In: *International Nuclear Law in the Post-Chernobyl Period*. *op. cit.* 21, 27, 30.

law) by means of the stipulation of the availability of compensation for victims residing within and outside the territory of the Installation State.

The Paris Convention per se does not contain provisions from which the later codified conception of State liability could be generated.

#### 4.4.1. The Brussels Supplementary Convention

The Paris Convention that stipulated the operator's absolute liability has been amended three times (by Protocols adopted in 1964,<sup>65</sup> 1982<sup>66</sup> and 2004<sup>67</sup>), but the Parties had realised already before the first amending Protocol that the system of civil liability cannot be rectified via a mere revision of the effective nuclear liability law.<sup>68</sup>

As a result of the efforts to make the amounts of compensation for liability of operators proportionate to the scale of the consequences of nuclear incidents, many of the members of the Paris Convention adopted the *1963 Brussels Supplementary Convention*, an international instrument that functions in full compliance with the Paris Convention via securing public funds for the compensation of victims, in case the amounts determined and claimed under the latter instrument are insufficient. Thus, within the purview of the Brussels Supplementary Convention, State liability is incorporated into the liability regime governed by the Paris Convention, because the Signatories of the Brussels Supplementary Convention<sup>69</sup> recognised that the liability of the operator limited in time and the amount of compensation under the Paris Convention would not be adequate.

The pivotal novelty of this instrument is the tier-based funding mechanism, which supplements the operator's absolute legal liability with financial measures based on external resources, which entails the liability of the State(s) to guarantee the availability of these resources. This system operates as follows:

- a) The first tier determines the operator's maximum financial liability, so that compensation claims are covered by insurance or other financial security according to the operator's limited compensation amount.
- b) The second tier requires the Installation State, in the territory of which the operator of the concerned nuclear power plant is situated, to make public funds available under national law. Thus, at the level of the second

<sup>65</sup> 1960 Convention and the 1964 Protocol entered into force on 1 April 1968.

<sup>66</sup> The 1982 Protocol entered into force on 7 October 1988.

<sup>67</sup> The 2004 Protocol has not yet entered into force.

<sup>68</sup> Cf. de la Fayette: *op. cit.* 7.

<sup>69</sup> Signed by 13 states bound by the Paris Convention (16 states).

tier under an unlimited legal liability regime, the amount of compensation supplied by the operator will be supplemented by public funds secured by the Contracting Party.

- c) The third tier draws on international public funds made available by the States pursuant to Para. b) of Article 3 and Article 12 of the Brussels Supplementary Convention. The three-tier mechanism imposes absolute legal liability on the operator, which means that no demonstration of a fault or negligence is necessary, therefore, no instrument concerns the exclusive liability of States in the scope of nuclear law, but exclusive jurisdiction is granted to courts of the Installation State.

Hence, under the Paris-Brussels system, if the amount of the operator's liability does not cover all the damage or the amount at the operator's disposal is not sufficient for the full-scale compensation as a consequence of the absolute liability of the operator, firstly, the Installation State, secondly, all the Contracting Parties contribute certain amounts up to a fixed limit according to the three-tier compensation scheme, nevertheless, the insurance or the financial security of the operator has prior obligations.<sup>70</sup>

#### 4.5. *The concept of State liability under the regime of the Vienna Convention ('Vienna regime')*

As far as the Vienna Convention is concerned, the conceptual basis governing the Vienna and Paris Conventions is identical,<sup>71</sup> since the fundamental and crucial principles coincide. As to the framework of these liability Conventions, both are based on four central pillars, namely, on the absolute liability of the operator of a nuclear installation (Article IV), on channelling exclusive liability (Article II), on the limitation of liability in amount and time (Articles V and VI) and on the establishment of the exclusive jurisdiction of the courts of the Installation State (Articles XI and XII).

<sup>70</sup> Cf. Dussart-Desart: *op. cit.* 14.

<sup>71</sup> After 1986 Chernobyl accident, there had been adopted a Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, in 1988, relating to the Paris and Vienna Conventions for the sake of establishing "a link between the Vienna Convention and the Paris Convention by mutually extending the benefit of the special regime of civil liability for nuclear damage set forth under each Convention and to eliminate conflicts arising from the simultaneous applications of both Conventions to a nuclear incident." See the Preamble of the Joint Protocol.



#### 4.5.1. The 1988 Joint Protocol Relating to the Application of the Vienna and Paris Conventions on Liability for Nuclear Damage

In view of the problems deriving from the 1986 Chernobyl accident, the gaps in the regulation became manifest. It was generally accepted by the Contracting Parties either to the Paris or to the Vienna Convention that an urgent revision of the instruments of nuclear liability was imperative. Several States submitted proposals for framing a new Convention on State liability for damage arising from nuclear incidents, but the clarification of the relationship between civil and state liability was thwarted by some States that refused to assume responsibility for transboundary harm caused by nuclear facilities under their jurisdiction or control.<sup>72</sup>

Consequently, the Paris and Vienna Conventions were designed to be linked by a *de lege ferenda* instrument, which uniformly formulated the legal regime of nuclear liability,<sup>73</sup> however, upon the actual adoption of the *1988 Joint Protocol Relating to the Application of the Vienna Convention and Paris Conventions*, the doctrine of *de lege lata* was applied.

The Joint Protocol, which is based upon the operator's absolute liability in a similar manner to the liability Conventions forming the basis of the Joint Protocol, links the Vienna Convention and the Paris Convention (encompassing both Conventions, so as to create a rectified liability regime) for the purpose of ensuring that the benefits of one Convention were extended to the Parties to the other Convention. Moreover, the problems arising from the differences between the two regimes were designed to be solved according to the Preamble of the Joint Protocol. As the final clause of the Preamble spells out,

*“The Contracting Parties desirous to establish a link between the Vienna Convention and the Paris Convention by mutually extending the benefit of the special regime of civil liability for nuclear damage set forth under each Convention and to eliminate conflicts arising from the simultaneous applications of both Conventions to a nuclear incident.”*

Accordingly, the possible conflict arising from the simultaneous applications of these Conventions implied no longer a problem pursuant to Articles II and

<sup>72</sup> Cf. de la Fayette: *op. cit.* 8.

<sup>73</sup> Recognizing the fact, that “the Vienna Convention and the Paris Convention are similar in substance and that no State is at present a Party to both Conventions”, as it reads in the Preamble.

III of the Joint Protocol.<sup>74</sup> Under Article II: “*The operator of a nuclear installation situated in the territory of a Party to the Vienna Convention shall be liable in accordance with that Convention for nuclear damage suffered in the territory of a Party to both the Paris Convention and this Protocol*”, and vice versa *mutatis mutandis*. Consequently, the Parties to the Paris Convention and to the Joint Protocol are no longer regarded as non-member States within the purview of the Vienna Convention, furthermore, they are mutually regarded as Contracting Parties, whenever the operative provisions of either Convention are applicable and both Parties may claim compensation, if the States affected by the incident are Parties to the Joint Protocol.

Therefore, the Joint Protocol provides the legal basis for eliminating the difficulties and impediments arising from the two distinct legal regimes and can extinguish the contradictions between the effects of the two liability Conventions.

#### 4.5.2. The 1997 Protocol to Amend the Vienna Convention

While the Paris Convention was adopted as the first instrument that incorporated elements of the nuclear liability of States (the 1963 Brussels Supplementary Convention and the Paris Convention entered into force in the same year), it persisted as an operative instrument with an increasing number of acceding States, since its amendments followed the changing circumstances. The Vienna regime, scilicet, the Vienna Convention, however, entered into force 14 years after its formulation, which entailed prospective anomalies by reason of the long interval between its codification and taking effect. This fact and the relatively low number of Parties to the Vienna Convention prompted the international community to amend the Vienna Convention, in order to respond to the technological developments achieved by that time and to eliminate the deficiencies of regulation emerging mainly after the Chernobyl disaster.

After the signature of the 1988 Joint Protocol (in 1988), the IAEA Working Group was set up (in 1989 for the purposes of the examination and revision of the civil liability regimes) simultaneously with the IAEA Standing Committee on Liability for Nuclear Damage with the comprehensive mandate to revise the

<sup>74</sup> According to the Article III of the Joint Protocol: “*either the Vienna Convention or the Paris Convention shall apply to a nuclear incident to the exclusion of the other.*” On the number of remaining differences between the two conventions, cf. von Busekist, O.: A Bridge Between Two Conventions on Civil Liability for Nuclear Damage: the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention. In: *International Nuclear Law in the Post-Chernobyl Period. op. cit.* 131.

regime of international liability for nuclear damage, including international civil liability, international State liability and the relationship between international civil and State liability.<sup>75</sup>

In 1997, the large majority of States (although, its membership is considerably restricted) adopted the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (hereinafter: Protocol).<sup>76</sup> International initiatives designated to supplement and revise the Vienna Convention in a broader scope aimed to attain three main objectives: as the requirement of more compensation for damage (cf., Para. 2 of Article 2 extended the content of nuclear damage, which was one of the most desired novelty), more money to compensate victims (the redefinition of nuclear damage reflected the intention to secure full compensation for victims), of more people entitled to compensation (due to the revised concept of nuclear damage, more entities can claim compensation for the injuries and damages caused by nuclear incidents).<sup>77</sup>

The other milestone revision by the Protocol setting the possible limit of the operator's liability at not less than 300 million SDRs (Paragraph 1 of Article 7), but not less than 150 million SDRs provided that in excess of that amount and up to at least 300 million SDRs public funds shall be made available by that state to compensate nuclear damage (unambiguously, the exceeding of the traditional approach of strict civil liability represented by e.g. the Vienna Convention).

Similarly, the Protocol revised the provisions of the Vienna Convention on the time limit for submission of claims for nuclear damage; 30 years from the date of the nuclear incident for compensation for loss of life and personal injury, while the time limit concerning the other types of damages remained unamended (10 years from the date of the nuclear incident).<sup>78</sup>

Since the Vienna regime was substantially revised in 1997, the problematic anomalies no longer influenced the behaviour of states in the intentional non-attendance from this regime. Thus, future prospects on the basis of the newly formulated Vienna regime as amended by the Protocol held out the promise to manage to settle the controversial questions.

<sup>75</sup> Cf. Lamm: *op. cit.* 170.

<sup>76</sup> On general remarks and contributions as well as differences of the Protocol, during the phase of regulation in line with Vienna Convention, see further Lamm: *op. cit.* 172–175.

<sup>77</sup> See in details Schwartz: *International Nuclear Third Party Liability Law...* 46–57.

<sup>78</sup> Article 8 Para. 1.

#### 4.5.3. The 1997 Convention on Supplementary Compensation for Nuclear Damage

The *Convention on Supplementary Compensation for Nuclear Damage* (hereinafter CSC) had been adopted in 1997 under the auspices of the IAEA (chiefly due to the efficacious support of the United States), simultaneously with the Protocol to Amend the Vienna Convention (discussed above).<sup>79</sup> Albeit, the CSC—not yet in force—is freestanding<sup>80</sup> with respect to other liability conventions, according to its Article XVIII Paragraph 1, *firstly* an instrument of ratification, acceptance or approval *shall be accepted only from* a State which is a Party to either the Vienna Convention or the Paris Convention, or *secondly*, from a State which declares that its national law complies with the provisions of the Annex to this Convention.

The CSC oversteps the generally accepted priority relating to the exclusive and absolute liability of the operator by means of providing for additional compensation out of international public funds in excess of the operator's liability limit amount.<sup>81</sup> Adopting the CSC, a state must bind oneself to enact laws for guaranteeing the availability of compensation amounts as a result of transboundary damages caused by states to be a contracting party to the CSC and if the installation state would establish international public funds (with about 600 million SDRs of which 150 million SDRs shall be reserved exclusively for transboundary damages).<sup>82</sup>

The CSC regulates, similarly to the Brussels Supplementary Convention, the tier-based system, with the difference that the first (private insurance) and second (member countries contribution) tier of compensation have been established by the CSC (Article III), while the CSC does not govern the distribution of the third tier.

The provisions of CSC incorporated into Article 5 of the Annex serve a *double purpose*. On the one hand, they ensure the availability of state funds for compensation of nuclear damage (pursuant to the mechanism written in the previous paragraph), which is to the benefit of victims. On the other hand, CSC

<sup>79</sup> On the CSC in details, see McRae, B.: *The Compensation Convention: Path to a Global Regime for Dealing with Legal Liability and Compensation for Nuclear Damage*. In: *International Nuclear Law in the Post-Chernobyl Period*. *op. cit.* 187–200.

<sup>80</sup> On its relevance, see *ibid.* 188.

<sup>81</sup> While the CSC is consistent with the basic principles of nuclear liability law set forth in the Paris and Vienna regime in consideration with the keystone regulation system (channelling liability to the operator, imposing absolute liability, granting exclusive jurisdiction, limiting liability in amount and in time) of them.

<sup>82</sup> See further McRae: *op. cit.* 191–193.

protects the operator against ruinous claims, as well. This so-called principle of congruence between liability and coverage is one of the internationally agreed pillars of nuclear liability law<sup>83</sup> in which the primary liability of operator and subsidiary liability of state have been appeared. The adoption of CSC has been motivated by the recognition of the essential importance of the measures provided in the liability conventions as well as in national legislation on compensation for nuclear damage consistent with the principles of the liability conventions (cf. Preamble of the CSC).

Recognizing the fact, if a nuclear accident or a radiological emergency occurs in the territory of a CSC member state causing transboundary damages and losses, and the amount of damages exceeds the limit amount of the absolute responsible operator, the claims for damages shall have been compensated from international public funds ensured by the CSC member state. So, the liability of the installation state is subsidiary as a consequence of the absolute liability of the operator that extends to provide for the exceeding amount exclusively irrespective of the fault or negligence to be attributable to the state and without dealing the possible liable state manner. In this case, the state's duty for compensation is, as a matter of fact, absolute but not under the provisions of the CSC, furthermore not exclusive and not full-scale (for the reason that the fund provides for amounts to compensate damages exceeding the maximum liability amount and the limited time period of the operator's liability) as it has been basically determined in Article 15.

#### *4.6. Attempts relating to codify the rules on state liability (with special regard to the concepts of state liability in the nuclear field)*

In the 1970s and 1980s, in the midst of the ILC's activities related to elaboration of the notion of state responsibility by giving its expression to establish a new topic of *International Liability for Injurious Consequences Arising out of Acts Not Prohibited by International Law*,<sup>84</sup> and furthermore, in the Preliminary Report on that theme prepared to 1985, the ILC divided the topic of

<sup>83</sup> Pelzer, N.: International Pooling of Operators' Funds: An Option to Increase the Amount of Financial Security to Cover Nuclear Liability. Discussion Paper for the IAEA INLEX Group Meeting on 21–22 June 2007. 2.

<sup>84</sup> See *Yearbook of International Law Commission*. New York, 1985. 1–143.

liability into the issues of the prevention of transboundary harm from hazardous activities, and of liability for injurious consequences.<sup>85</sup>

The *1985 Preliminary Report* of the ILC found that “past trends demonstrate that states have been held liable for injuries caused to other states and their nationals as a result of activities occurring within their territorial jurisdiction or under their control.”<sup>86</sup> According to the same Paragraph, the concept of absolute and strict liability of operators (license holders) based upon the most instruments dealing with nuclear liability issues (especially Paris and Vienna Convention), had been damaged due to a pivotal provision of the Preliminary Report which reads as follows: “even treaties imposing liability on the operators of activities have not in all cases exempted states from liability.”<sup>87</sup>

Seeing that, several multilateral conventions impose certain responsibilities upon the state in order to ensure that the liable operators abide by the conventions containing relative rules. And, if a state fails to do that required activity, it is held liable for the injuries the operator causes. This kind of channelling method transforming operator’s liability to residual liability of states serves as a basis for recognizing and promoting the concept of state liability.

Two years later, ILC published its *Third Report* (*Second Report* prepared to 1986) on the aforementioned subject taking serious steps towards a comprehensive liability regime by means of defining the term ‘liability’ but without the explicit usage of term ‘state liability’. No phrase of ‘state liability’ occurs in the text of the Report pointing ahead the subsidiary role of that in comparison with the primary private (civil as operator or license holder) liability.

Also, for that reason the IAEA Board of Governors decided to set up the *Standing Committee on Liability for Nuclear Damage* in 1990. It was expressly requested to consider international liability for nuclear damage, including international civil liability, international state liability and the relationship between international civil and state liability.

The work on regulating state liability has soon concentrated on the one hand, on the revision of the Vienna Convention and, on the other hand, on the establishment of a system of supplementary funding. At least, no general agreement has been accepted on the basis of the Committee’s work, especially in view of regulation concerning state liability regime. During the discussions on the

<sup>85</sup> Cf. Rao, S. P.: *First report on the legal regime for allocation of loss in case of transboundary harms arising out of hazardous activities*. UN Doc. A/CN.4/532 (21 March 2003) Para. 33.

<sup>86</sup> See *Yearbook of International Law Commission*. *op. cit.* 94.

<sup>87</sup> Cf. *ibid.*

coherency between state and civil liability, several options were considered by the Commission for the sake of giving rise to some form of reparation.

Until 1997, within the scope of nuclear liability regime, two main instruments had governed the liability regulation operating under the auspices of the IAEA (Vienna Convention on Civil Liability for Nuclear Damages) and OECD (Paris Convention on Third Party Liability in the Field of Nuclear Energy) that involved the complexity of liability rules with the problem of the separate (Paris and Vienna) mechanisms incorporated into the conventions dealing with the similar questions but in significantly different level. Furthermore, the state participation is different in the relation of the two conventions, because Paris Convention had been signed by a group of states of the Organization for Economic Cooperation and Development, whereas the Vienna Convention was intended to regulate the related issues on a worldwide scale.<sup>88</sup>

As opposed to the general acceptance of the operator's absolute liability, similarly to the Paris and Vienna Convention combined by the provisions of the Joint Protocol, the commitment required from the states to create public funds is considered to be a special form of the appearance of the term 'state liability'. But this term has not been incorporated into the expressed scope of the CSC because it lays the rules on compensation mechanisms down, in which making clear, that this instrument deals only with civil liability,<sup>89</sup> so the concept of state liability has been unambiguously excluded from the text of the CSC.

## Conclusion

After the 1986 Chernobyl accident, scilicet, when the international community recognised that there was no effective (State) liability legal regime, attempts were made mainly within the scope of the competent body, namely, in the work of the IAEA. Nuclear accidents and radiological emergencies with transboundary effects causing increasingly serious damages reassessed the (almost exclusively civil) liability regime of that time.

The Vienna Convention imposes the obligation on the Installation State of guaranteeing compensation for victims that suffered nuclear damages due to nuclear accidents "*which have been established against the operator by providing the necessary funds to the extent that the yield of insurance or other financial security is inadequate to satisfy such claims, but not in excess of the limit*" (Paras. 1–2 of Article 9 of the Protocol to Amend the 1963 Vienna Convention).

<sup>88</sup> See Lamm: *op. cit.* 170.

<sup>89</sup> Cf. Article 15 of the CSC.

Thereby, the ensuing transboundary effects of nuclear accidents demanded the review of nuclear law with special regard to the experiences that occurred in 1986 and to the fact of the inadequate regulation of liability (and/or responsibility). In the period after Chernobyl, it became unambiguous that a civil liability system (the Paris and Vienna regimes) based upon the primary liability of the operator cannot be maintained in itself by reason of the high amount of damages to be paid for the victims of an accident or emergency involving transboundary effects.

The purpose of the subsequent regulation has been to eliminate these problems by means of establishing public funds, extending limitation periods, clarifying the main rules concerning issues of jurisdiction, etc. These objectives have been manifest in initiatives aimed at amending and reconceptualising the system of the Vienna Convention, which as an intention has been realised and are available as legal instruments in force or as drafts.<sup>90</sup>

Nevertheless, with reference to the prospective regulation, we have to observe *de la Fayette*'s apt remark, which reads as follows: "*some States are willing to pay, but unwilling to admit they are liable to pay.*"<sup>91</sup>

<sup>90</sup> Julia Schwartz offers a survey of these instruments, cf. Schwartz: *International Nuclear Third Party Liability Law... op. cit.*

<sup>91</sup> See *de la Fayette: op. cit.* 25.