

LEGAL DIMENSION OF THE RESPONSIBILITY FOR NUCLEAR DAMAGE

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Abstract:

Pollution has no limits and its local (national) effects could quickly evolve into regional, continental or worldly effects.

That is why protecting the environment from the aggressive factors must be a concern for each human being on the planet and especially for those who take decisions regarding issues of this field.[3] One of the most dangerous forms of aggression over the living and non-living world is nuclear pollution, an almost perfect aggression, with a multiple and universal character, because all of the components of environment are affected: earth, water, air, life. It is the most perfidious destructive force because it destroys in a slow but certain fashion any form of life.

It is invisible, without color or smell, it doesn't cause immediate pain and has no established or known limits in time.

Regarding the risks briefly presented earlier, a careful survey is required, but above all, elaborate legal regulations of nuclear power production and utilization, to avoid accidents that can cause serious damage to people and to the environment.

Sometimes nuclear pollution can't be avoided even though security measures are taken. The danger and also possible nuclear damages caused to the environment, persist. That is why the issue of the legal responsibility for nuclear damages arises, and also the legal responsibility of damage repairs in the field of nuclear power production and employment.

Key words: nuclear pollution, nuclear explosion, nuclear damage, legal responsibility, polluter pays principle.

JEL classification: K10

I. NUCLEAR POWER : ADVANTAGES AND RISKS

Two of the reasons that lead to the choosing of this theme, concerning the legal dimension of the responsibility for nuclear damages, are primary.

The importance of the enumeration of the multiple and varied aspects concerning the advantages and risks that this form of power presents, would be a first reason connected to the adoption of some new regulations in accordance with its exploitation and employment responding to human and social needs.

Among the recent regulations we mention the validation of the new Civil Code that gives a set of common rules for all forms of criminal responsibility and that also contains the responsibility for nuclear damage.

We shall, of course, appeal to the common law only if the special regulations taken in this field are shallow, confusing and obscure.

Digging deeply into the complex issue of legal responsibility for nuclear damages, requires before all, some conceptual appreciations about nuclear power, its benefits and risks, and also about eventual recoveries in case there might be nuclear damage.

1) Nuclear power is considered to be one of the most important discoveries of the 20th century. It came as a response to the profound need of covering the power deficit after the Second World War, as long as it was used in peaceful [7] purposes. (the employment of nuclear techniques and radioactive isotopes in almost all of the social life fields)

Unfortunately man used, nuclear power as a mass destruction weapon for people and other forms of life and things, which proves the enormous danger that this form of power represents. (1)

Even when nuclear power is used in beneficial purposes for man, some of the risks are still hovering over him. That is why the international community is very cautious when using nuclear power even in peaceful purposes. Man can be radioactively contaminated either directly, because of

the radioactivity of the gases or suspension powder, either indirectly by internal contamination with food.

Direct contamination (through respiratory or skin affections) is more often seen in the professional field, on people who come into contact with radioactive sources or who work near them. Indirect contamination, by digestive means, is the most commonly seen and it touches all human beings.

The sources of artificial radiation could be: the extraction and processing of radioactive minerals, depositing radioactive waste, radioactive wastages from nuclear plants, radioactive deposits as a result of nuclear weapon experiments, Roentgen radiation installations, etc.(2)

In case of using nuclear power the danger could come from nuclear explosions and nuclear pollution.

Nuclear explosion has an enormous destructive force, but it has a sporadic character and it is localized in a definite area. Its destructive effects have spread especially since the explosion of the first atomic bomb in Japan (august 1945). Until that date, registered explosions have been insignificant and they produced in plants using nuclear fuel or in atomic physics laboratories.

Other nuclear accidents have followed with various dimensions and effects. The causes of these accidents were human error, insufficiently trained exploitation personal, either natural phenomena. We give the following examples in chronological order:

- Chalk River accident, Canada (1952) caused by electric network overpowering and wastages in the cooling system;

- Windscale Pile incident, Great Britain (1957), considered to be the greatest nuclear disaster of the country caused by a reactor overheating ignition;

- same year (1957), in Kyshtym, Russia a nuclear accident occurred because of a cooling system damage from a radioactive garbage container;

- follows the event considered to be the greatest accident in the history of commercial nuclear plants in Three Mile Island 1979 caused by a broken valve leading to the reactor overheating and radioactive gas wastages

- the accident in Chernobyl, Ukraine 1986 stood out through proportions and effects; it is considered to be four times bigger than the accident in Kyshtym (Russia), with a radioactive cloud that spread all over Europe;

- another nuclear accident produced in Tokaimura (Japan) in 1999 because of human error and shallow training of the exploitation personal which lead to a chain reaction causing the exceeding of nuclear criticality;

- the most recent nuclear accident produced in Japan (2011), is at the nuclear plant in Daiichi. It is said to be among the greatest accidents in the world. The accident was the result of the March 2011 earthquake that caused power shortages and the inhibition of reactors cooling pumps. The temperature critical level was greatly exceeded and explosions occurred at 4 out of 6 reactors of the plant.

Experimental nuclear explosions also deeply damage the components of the environment especially the atmosphere, the terrestrial flora and fauna, by producing huge temperatures that transform gas radioactive substances into particles freed into the air.

Specialty doctrine [4] separates the radioactive primary pollution (as a result of a nuclear explosion) from secondary radioactive pollution. By the primary radioactive pollution radioactive gas turns into particles and after that in the second stage, particles in the atmosphere are absorbed by natural factors and deposited inside the earth and into the water.

Nuclear pollution (from other sources than nuclear accidents) takes place by artificial contamination of the environment over the natural values. This is the result of a slow accumulation of negative effects; should these be out of man control and not mended on time, they shall lead to the most serious consequences over the environment. In the same time the interdependence and connections between different parts of the natural system amplifies the negative effects that can spread in a chain reaction from one natural element to another. This is why it is firmly said that nuclear pollution "is an almost perfect aggression with a multiple and universal character because

all of the environment elements are affected in the same time: earth, water, air, life (in all its shapes)” [4]. “It is the most perfidious destructive force because it destroys slowly but surely any form of life. It is invisible, without color or smell it doesn’t cause immediate pain and it has no known or established limits in time”[5].

Regarding the risks briefly presented earlier, careful survey and regulation of the nuclear power production and utilization are required, to avoid accidents that could cause serious damage to people and to the environment (3).

But life has demonstrated that against all security measures taken, nuclear pollution could not be stopped. The danger persists and with it, potential nuclear damages caused to people, to the environment, and to the entire planet. That is why the issue of the legal responsibility for such lesions arises, and also the legal responsibility of damage restoration in the field of nuclear energy production and utilization.

II. GENERAL CONSIDERATIONS CONCERNING CRIMINAL RESPONSIBILITY FOR NUCLEAR DAMAGE.

Nuclear damage is a variety of the *ecological* damage, included into the larger field of civil crime responsibility, that in its turn must be analyzed as a form of civil responsibility.

In the juridical doctrine, civil responsibility is considered as “one of the most important objective manifestations of the juridical responsibility and in the same time a very important category and a very complex institution of the civil law.” [6] This is an institution that applies very often and that is used in all of peoples’ activities in society. It requires caution and diligence to prevent and avoid lesions.[1] The idea of repairing an unjust lesion caused to another person is its fundament and it can be the rule for repairing a lesion caused by “any action of the person that could cause someone else a lesion” (4) , either for an exceptional situation when at the bottom of the lesion causing action is the violation of the contractual discipline (the non-execution of contractual obligations, their improper execution or the delayed execution of contractual obligations already taken). “The result is that contractual responsibility has a special and derogatory character towards criminal civil responsibility (which is the common law of civil responsibility) [2]. Criminal responsibility is drawn by the conditions of a legal obligation with a general character that applies to everyone. It is a general negative obligation not to touch other person’s rights by illicit actions. As for contractual responsibility, it is relevant as long as the violated obligation is objective and established by the agreement of the sides making the contract. The source of criminal responsibility is, as shown “any of the man’s actions that causes a lesion to someone else”, while the source of contractual responsibility is the expressed (concordant) will of both of the sides making the contract. Given the objective we chose, we shall stop to the criminal responsibility with some short references concerning the evolution of its regulation.

In the former Civil Code, the place of the regulation for this form of civil responsibility is between the 998th and 1003rd articles, an exact reproduction of the content between the 1382nd and 1386th articles from the French Civil Code that inspired the 1864 Romanian Civil Code. Only the 1003rd article was inspired by article no. 1156 from the Italian Civil Code (which was just a project while the former Romanian Civil Code was being made). One can see that in a few articles, Romanian civil law synthesized a principle stretching its roots up to the Roman law according to which, whoever causes another a lesion must repair it.

During time, the regulations of the former Civil Code were completed by the regulations applicable in certain responsibility special situations (including nuclear damage responsibility). Most of them are still active.

In the new Civil Code, the regulations concerning criminal responsibility are concentrated in a special chapter (IV), from the 5th book called “About Obligations” 2nd title (1349-1395 articles).(5)

The main element of this institution’s juridical basis is each person’s obligation to respect behavior rules that the law or the customs of the place impose and not to damage, by its actions, the

rights or legitimate interests of other people. That is why, if a person is able to discern and yet he ignores this duty, he will answer for all of the lesions caused and will be forced to repair them entirely (art. no. 1349 al. 2 new Civil Code). As for the civil responsibility basis (particularly concerning the issue under debate), the new Civil Code exploited the main opinion in the civil law doctrine and practice according to which this form of legal responsibility has a unitary character sustained by its social functions, with two different legal regimes: the crime responsibility regime (common law) and contractual responsibility regime (with a special derogatory character from the common law).

The analysis of the texts we talked about stresses a much more elaborate criminal responsibility regulation, covering some missing parts of the old regulation such as the effects of civil criminal responsibility. But even under these circumstances for some of the special hypothesis regarding civil criminal responsibility, special regulations coexist with new Civil Code regulations, imposed by the specificities of the domains where legal rules were violated. Among the regulations that help developing new civil code dispositions, we are interested in the Law 703/2001 (6) regarding nuclear damage responsibility with all the modifications and complements brought by G.E.O. no. 195/2005 (7). Until the adoption of this law, the regulations regarding the protection of the environment, including the ones against nuclear lesions, had a particular evolution that we will speak about in the pages to come.

III. CONDITIONS OF NUCLEAR DAMAGE RESPONSIBILITIES IMPOSED BY ROMANIAN REGULATIONS

Nuclear damage is included, as shown, in the larger context of criminal responsibilities, because it interferes in case of an illicit action (omissive or commissive). A person's action is illicit when it does not respect legal dispositions. The notion of „action” must be analyzed under a double aspect. „*Stricto sensu*” by an illicit action we understand a person's manifestation that other people can also perceive (will and thought exteriorized). „*Lato sensu*” along with the exteriorization of his will and conscience, a man's action also covers the consequences of the action, that is to be found in the influence (modification) of an existing legal situation.

The illicit action is the one releasing the mechanism of the legal responsibility, but it is not its only condition. The consequences of the illicit action must be found in a moral or material lesion. There must be a causative connection between the illicit action and the lesion. These three conditions shape a material (objective) side of the legal responsibility. There is also a psychological side (guilt), reflecting in the psychological attitude of the illicit action's author, towards that precise action and its consequences. There is another negative condition adding to the four positive conditions (that lead to legal responsibility), concerning the lack of responsibility exonerating causes (we can also speak about this as the presence of the criminal capacity of the illicit deed author). (8)

The conditions we mentioned must also be applied in the case of nuclear damage responsibility, with all the specificities that this domain requires. In the field we are analyzing, we must notice the efforts of the legal proceedings to apply and adapt classic rules of civil responsibility to the specificities of the damages caused to the environment by the production and employment of nuclear power.

Practice is supported by the special regulations that make a principle from the fact that breaking the legal rules in the field of nuclear production and utilization attracts penal, contravention or civil responsibility (9) .

We shall further analyze civil responsibility for nuclear damages as presented by the present Romanian regulations, including the new Civil Code that offers common law in the field of criminal responsibility in this special hypothesis.

As we said, civil responsibility for nuclear damages was for the first time settled by the law no. 61/1974 regarding activity development in nuclear field. This is a regulation with a general content based, in the first place, on preventive measures: activities, installations and nuclear

domain working personal authorization, systematical surveillance of radioactive pollution, registration and security of the material present in the country, etc.

For situations presenting nuclear damages that have already occurred, law no. 61/1974 establishes a set of special conditions and rules that are the basis of civil responsibility in this field (art. no. 33-38):

- An illicit action by infringing the regulations in this domain, that lead to a nuclear accident or other form of nuclear pollution;
- The producing of an environmental lesion consisting in the hurtful, patrimonial or non patrimonial result of nuclear activities
- Causative connection between the illicit deed and the lesion. As for the condition of guilt we must say that an objective responsibility based on the idea of risk operates concerning nuclear damages.(10)

Risk theory specifies that any activity representing a risk for another attracts author's responsibility for possible lesions without the necessity of proving the guilt.

In the conception of the regulation we mentioned, responsibility exemption could be cancelled only if the nuclear accident was the direct consequence of conflict actions or catastrophic natural calamities.

If for a nuclear damage, a nuclear and a non-nuclear accident concurred, the law would establish an exclusive causality presumption between the nuclear accident and the loss.

Several authorization owners could be involved in the producing of a nuclear accident and in this situation, their responsibility would be dividable (except the case when they couldn't establish the share of contribution and the lesion would then be supported in equal parts)

No matter what the authorization owner number is, the maximum responsibility board for each nuclear accident used to be 80 million lei and the prescription dead-line to act in favor of the compensation used to be 10 years. The countdown for this dead-line would start from the moment the victim knew or could know the existence of the damage and the responsible authorization owner. (11)

With some modifications and later additions the conditions of nuclear damage responsibility were introduced in the present laws, responding to the new demands of the contemporary world also reflected in the Romanian laws after 1990.

The Romanian Constitution (1991) is also relevant for the issue we are analyzing. The Constitution is revised and it particularly establishes human's right to a healthy ecologically balanced environment. This is a right that is a part from the third generation of human rights (human solidarity rights) and it requires an adequate legislative frame, because protecting and improving the environment represents a duty for all the factors involved.

Constitutional dispositions concerning the protection of the environment and the responsibility for the caused damages are specified by special regulations among which we mention: the law no. 106/1992, law no. 111/1996, law no. 73/2001, G.D. (Government Decision) no. 1259/2002. We shall speak about these in the next few lines:

The law no. 106/1992, by which Romania adhered to the Convention regarding civil responsibility for nuclear damages concluded in Vienna (May 21st 1963) and the Common Protocol concerning the application of the Paris Convention (concluded in September 21st 1988), helped Romania range to the European regulations in this field.

Law no. 111/1996 regarding safe development of nuclear activities (that repealed former regulations in this field), was also adopted to range Romanian legislation to international regulations.

To synthesize, law no. 111/1996 defines more accurately the activities and sources it applies to, the competent authorities in the nuclear field, the authorization owner's and other legal and natural people's obligations, the control regime of these activities and administrative, penal and civil responsibility for the legal provisions violation.

Inside the mentioned law, the dispositions regarding civil responsibility for nuclear damages have a reduced gravity. They can be identified inside the content of the article no. 25, 2nd indent that

stipulates that “the responsibility for nuclear damages caused during or as a consequence of accidents that could occur by developing the activities stipulated by the authorization,” of other activities that had as a consequence the death, the body or health integrity violation of a person, the destruction, the damaging or temporary impossibility to use any kind of goods, is entirely imputed to the owner of the authorization, under the conditions established by the law and by the international pledges that Romania has committed to.

A series of principle aspects settled by the law no. 111/1996 are related in detail by the G. D. no. 7/2003 that has as a settlement object the promotion and organization of activities in the nuclear field to ensure nuclear power resources, science and technology progress by encouraging research, development and nuclear applications in peaceful purposes.

We clearly understand from the text above that the settlement object does not apply to nuclear damages caused by nuclear activities that carry on in other purposes.

The dispositions of the 1st article from law no. 703/2001 regarding civil responsibility for nuclear damages are formulated under the same spirit and it stipulates that the object of this law is constituted by the civil responsibility to repair the damages caused by nuclear power employment in peaceful purposes.

The detail conditions for taking the nuclear damage responsibility are the following:

- Only the following nuclear damages are submitted to the regime of this law; we understand by „nuclear damage”: „any decease or any injury, any loss or deterioration of the goods, any economical loss caused by decease, injury, loss or deterioration of the goods unenclosed in these damages, if it is bore by an unqualified person to ask for compensations. ”

- The cost of the rebuilding measures for a damaged environment as a result of a nuclear accident, if the damage is significant; any income loss that comes from an economical decease towards any utilization of the environment; any other economical damage, other than the one caused by the degrading of the environment.“ [7]

- There must be a certain proof that nuclear damages come from a nuclear accident and we understand by nuclear accident “any act or act succession having the same origins, that cause a nuclear damage and regarding the preventive measures create a serious imminent threat to produce such a damage”. [7]

- The task of repairing nuclear damages is entirely the duty of the nuclear installation operator, if there is a causative connection between the nuclear damage and the accident that produced in that particular installation. [7]

- In case there are several authorization owners involved in the nuclear accident, their responsibility is dividable, that if it is possible to clearly settle which parts are due to each one of the owners and if it is not, than their responsibility is joint and several.

- The psychological side of this form of criminal responsibility is based on the idea of risk leading to an objective responsibility without guilt. (12) This kind of responsibility has as its fundament “a guarantee obligation having as a support the risk of activity created for the obligation that is due to the operator, meaning to the authorization owner for the carry-on of the nuclear activity.” [5]

This is one of the situations that justify a responsibility for the lesions caused by man, independently of any guilt, enhancing the current that claims its presence in law theory and practice aiming “the set-back of the civil responsibility based on guilt.” [6]

In the situation we showed, based on some special regulations that we will talk about later, the polluter is compelled to compensate the victims in all of the situations where there was caused a lesion, independently of any of his guilt, in other words, no matter his psychological attitude towards the actions and their consequences.

- The responsibility exemption of the operator takes place only if he can make the proof that the nuclear damage is caused exclusively by armed conflict acts, civil war, insurrection or hostility. [7] It is possible for the victim’s guilt to be considered a cause for the responsibility exemption under the conditions stipulated in the article no. 5, 1st indent. The article we quoted above stipulates that “total or partial responsibility exemption is possible if it is proved that the

nuclear damage was exclusively caused by the victim of the nuclear accident and also by a serious guilt or by the action or non-action the victim deliberately committed.”

- If the result of a nuclear accident is a nuclear damage and a non-nuclear damage or if the damage is the result of a nuclear accident together with one or more different events, the nuclear damage is considered to be non-nuclear (except the situation where the nuclear damage can certainly be distinguished from the nuclear one).

- The limit of the operator's responsibility is the equivalent in *lei* (Romanian currency) of 300 millions S.D.R. (short form for “special drawing rights”) for each nuclear accident.

- In exceptional cases with the approval of the competent national authorities, the responsibility of the operator can be limited for each nuclear accident to less than the equivalent in *lei* of 300 millions S.D.R., but not less than the equivalent in *lei* of 150 millions S.D.R. In this last case the law imposes that the difference between the equivalent in *lei* of 300 millions S.D.R. and the equivalent in *lei* of 150 millions S.D.R. to be born by the state out of the public funds to ensure the coverings of the nuclear damages under the conditions of active regulations. [7]

National competent authorities can also approve the limitation of the operator's responsibility under the equivalent in *lei* of 150 millions S.D.R. (but not less than the equivalent in *lei* of 75 millions S.D. R.) The condition required by the law is that the nuclear accident should have occurred within 10 years from the enforcement of the law no.703/2001.

- The operator can be sued to compensate the victim within 3 years since the date the victim knew or should have known the damage and the identity of the person responsible for the damage [7].

- When the conditions meet one can also talk about the regress action of the operator who has compensated the victim against his own employees or other people.

- Active regulations admit regress action in three situations: if the nuclear accident that caused the damage is the result of an action or non-action deliberately committed to cause such a damage; if there is a convention that gives right to compensations; if the state allocated money amounts from the public funds that can cover eventual nuclear damage (art. No. 8 from the law no. 703/2001).

CONCLUSIONS

The problem of the juridical responsibility for damages caused by the deterioration (sometimes an extremely serious one) of the weather because of nuclear power utilization was insufficiently treated in law theory and practice.

Although there is a fund holding national and international regulations, numerous aspects concerning the benefits and the risks of nuclear power escape legal dispositions and this increases the concerns and the uncertainty of the international community.

What we certainly know is the fact that responding to the worldly power demand as well as the awareness that natural classic combustibles (oil, natural gases, coal) are limited, have encouraged nuclear power utilization as a supplementary source of power.

Especially after the Second World War, nuclear power has responded to a deep need of covering the power deficit as long as it was used in peaceful purposes. Even in the situation when nuclear power is employed in beneficial purposes for man, some risks hover over him. Employing nuclear power with the purpose of destroying mankind and other forms of life is even more dangerous.

This is why the international community and the decisional factors in this field must be more than careful towards the risks that the production and employment of nuclear power involve even when used in peaceful purposes. The aspects we mentioned must find an objective regulation with precise rules for the environmental law that must have both a preventive and a repairing character.

Unfortunately life has often demonstrated that in spite of all security measures taken, nuclear pollution and this kind of accidents couldn't be avoided. Dangers persist and together with them potential nuclear damages caused to the environment remain. That is why the issue of legal responsibility for such lesions arises in the specific manner of the nuclear power production and employment.

In the analysis of the multiple and varied aspects linked to the production and employment of the nuclear power, we must make the difference between the actions that generate an illicit responsibility, from the point of view of the international law and the illicit actions (not forbidden by the international law) which arise legal responsibility issues because of the risk they imply.

Concerning this last type of responsibility, in the international law, there are no general regulations but only conventional (partial) regulations. One must however notice a growing preoccupation of the world states for nuclear lesions responsibility. The most important ones are: the 1960 Paris Convention concerning nuclear damage responsibility; the 1963 Vienna Convention concerning nuclear damage civil responsibility; the 1986 Vienna Convention concerning fast notifications of nuclear accidents; the 1986 Vienna Convention concerning the assistance in case of nuclear accident or radiation emergency.

International Law Commission is preparing new general rules to complete the regulations we mentioned above, that are also applicable in the field of nuclear damages and that should carefully settle states and decisional factors conduct policy, in order to ensure the prevention and the diminution, if not even the stop, of border-crossing damages caused by nuclear power.

ENDNOTES

(1) *Nuclear power is said to be one of the greatest dangers threatening the planet should it be used as a terrorist weapon*

(2) *We can also speak about natural radioactivity as man is exposed to natural radiations from remote galaxies, from the Sun, the Earth, the atmosphere, and the water. During time, man has adapted to these radiations and that is why they don't hurt its biological being, certain limits should not be broken.*

(3) *At this point of our intercession we must point out authorities preventive functions that multiply their valences in the field we mentioned. As long as the destructive effects of nuclear power escape the damage prevention efforts, one can talk about diminishing them as much as possible and about mending the situation by forcing the ones responsible, according to the law, to recoveries. A recovery function takes shape, presenting some specific notes in the field we analyzed. These functions can be realized both by internal regulations taken in this field, and by the international regulations. Using nuclear power under national security conditions and the protection of the professionally exposed personal, the protection of the population, of the environment and of the property and above all, certain nuclear damages are international issues (extraterritorial) and that is why they were and continue to be under the attention of decisional and management factors of international issues.*

This is the reason why since the '70s universal or regional regulations were taken, which have carefully established the legal sphere of nuclear activities development, especially the one concerning damage caused by nuclear activities and accidents.

We are talking about the Paris Convention concerning civil responsibility in the field of nuclear power (since April the 1st 1963) and the Vienna Convention concerning civil responsibility for nuclear damage (since September the 12th 1977).

The issues we analyzed are also covered by the two Conventions adopted under AIEA, after the catastrophe in Chernobyl: the Convention concerning the quick notification of a nuclear accident and the Convention concerning the assistance in case of a nuclear accident and radioactive emergency. The documents we mentioned stress the efforts and the will of world states to regulate by legally harmonized rules, the aspects concerning the prevention and fixing of possible nuclear damages caused by the production and utilization of nuclear power.

Internally, Romania participated to the international community's general efforts to settle by juridical rules the social relations in this field (especially the ones concerning the responsibilities for possible lesions caused in the nuclear field).

Ever since the 8th decade of the past century there was established a frame settlement – Law no. 61/1974 concerning nuclear activities to line up Romanian law to international settlements.

The new reality in Romania after 1990 required new settlements able to respond growing demands concerning nuclear energy use imposed especially by the European communitarian settlements.

A new frame settlement came - Law no. 111/1996 concerning safe development for nuclear activities (it recalled the law no. 61/1974).

A synthesis of the law no. 111/1996 shows the activities and the sources to which they apply to, the competent authorities in the nuclear field, the owner's and other people's authorization obligations, the control regime for these activities and administrative, penal and civil responsibility for breaking legal provisions.

The content of the law presented above shows that the dispositions concerning civil responsibility for nuclear damage are reduced (art. no. 25 of the law no. 111/1996) and that is why a special settlement for the particularization of nuclear damage civil responsibility linked aspects was adopted by the law no. 703/2001

(4) Art. 998 from the former Civil Code and art.1349 al. 2, from the new Civil Code

(5) The texts are completed, when necessary, with dispositions from art no. 214-219 concerning the responsibility of juridical people and also with art. 630 from the same code concerning the responsibility coming from neighborhood relations

(6) Published in the Official Monitor no. 818/ December 19th 2002. It was enforced 12 months after this date.

(7) Articles no. 45-48 from chapter 7 of G.E.O. 195/2005, named "Nuclear Activities Regime" are relevant. G.E.O no 195/2005 refers to environment protection.

(8) Criminal responsibility is a form of civil law responsibility, expressly validated by art. no. 998, 1864 Romanian Civil Code according to which "any action of a person causing someone else a lesion forces the one whose mistake caused the lesion to repair it. In a similar fashion the new Civil Code defines criminal responsibility starting from "the obligation of any person to respect behavior rules that the law or local customs impose and not to damage by its actions, the rights or the legitimate interests of other people." (art. no. 1349, 1st indent). That is why "the person who willingly breaks this duty, answers of all lesions caused and is forced to fully repair them". (art. 1349, al. 2). For details concerning this form of civil law responsibility, see I.P. Filipescu, A.I. Filipescu "General Theory of Obligations" Actami Publishing, Bucarest 2002, p. 117 and next Elena Iftime, „Juridical Responsibility”, „Introduction in Law Theory and Practice”, Univ. Suceava Publishing 2001 p. 217; L. Pop, I.F.Popa, S.I.Vidu, „Civil Law Elementary Treaty”. Obligations, Universul Juridic Publishing, Bucharest. 2012, p. 405.

(9) Concerning penal responsibility as far as special laws are not sufficient, we can also use Romanian Penal Code.

(10) In the field we are analyzing, the idea of risk presents some specific notes, that is why some particular rules are required, compared to other forms of the objective responsibility. Especially in the field of nuclear damage responsibility, the civil responsibility regime for risk shows some advantages compared to criminal responsibility based on guilt. The compensation of the victim is compulsory; the cases of responsibility exemption are strictly settled to emergency cases in exceptionally situations. Because of the particularities and the extremely serious consequences that nuclear damages can cause, they must be fixed as quickly as possible to avoid aggravation and to limit negative consequences.

(11) The 10 years latest term during which the action for the environmental damage repairing action can be forwarded, reappears in the most recent regulations in the field of the NCC, for example, it contains an express disposition in the article no. 2518, 3rd point.

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