

Main features and particularities of the environmental pollution liability insurance

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Abstract—The focus in the article is placed on the need to improve the environmental pollution liability insurance. The issues at hand and their urgent nature require that we raise the following topics: an overview of the mechanisms of insurance protection when indemnifying the consequences in the event of environmental risk occurrence; outlining the advantages and disadvantages of the two organisational and legal forms of environmental pollution liability insurance; defining the problems and guidelines for development of the type of insurance in question.

Keywords—*environmental pollution liability insurance, environment protection, assessment of losses, insurance amount, insurance premium, company's risk management.*

Insurance against environmental pollution occurs within the context of the global environmental policy, which aims at achieving the common goal of all countries, namely, the preservation of the environment and the protection of the health of the population from environmental hazards. Over the last few years of our century, there has been a growing need for improvement in the environmental pollution liability insurance. The issues at hand and their urgent nature require that we raise the following **topics**:

- an overview of the mechanisms of insurance protection when indemnifying the consequences in the event of environmental risk occurrence.
- outlining the advantages and disadvantages of the two organisational and legal forms of environmental pollution liability insurance.
- defining the problems and guidelines for development of the type of insurance in question.

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Environmental pollution liability insurance is a particular type of insurance, which falls under the category of Environmental insurance. According to the Insurance Code in Bulgaria, this insurance product is offered by insurers who specialise in the General insurance division and is grouped together with professional liability insurance policies, which is in turn part of the General liability insurance.

Environmental insurance is a particular insurance sector, which includes a number of insurance products aimed at indemnifying damages resulting from environmental pollution. Insurers cover such damages from environmental pollution as

relate to the life, health and disability of the people. Therefore the insurance sector of Environmental insurance encompasses insurance policies from the sectors of both General insurance and Personal insurance

The **subject** of insurance in the case of the insurance product in question is the legal liability of the owners of potentially hazardous property as relates to the need to indemnify the losses of third parties arising from technological malfunctions and anthropogenic accidents as well as legal claims filed by individuals or legal entities in compliance with the regulations provided by the civil legislation. In other words, what is insured is the liability in view of protecting the insured in the event that a claim has been filed against them to indemnify for damages resulting from loss of property. What can be insured are both non-pecuniary damages as well as property losses arising from a violation of the right of ownership, inventory rights, the right of production and the right of resale of waters.

A crucial problem when insuring against environmental risks is the problem with the **assessment of losses** caused by environmental pollution.

The term „losses' in environmental insurance denotes 'the incurred costs of the person whose right has been violated or the costs they will incur in restoring those violated rights, the damages sustained by the property (actual loss) as well as such income as the person would have received under ordinary circumstances and civil turnover had their right not been violated (lost profits)'.¹

In insurance literature all losses arising from the „environmental pollution” risk are defined also as „losses ensuing from an industrial accident and the emission into the environment from a single source of a certain amount of harmful substances which has led to a negative impact on a particular receptor”. Environmental pollution may result in harmful impact over the population, housing and utilities, the main industrial funds, agriculture, pisciculture, forestry and recreational resources.

As a rule, insurers *do not indemnify* certain losses, as specified in the general terms of the insurance policies. They are as follows:

¹ Гражданский кодекс Российской Федерации, статья 15. (The Civil Code of the Russian Federation, article 15), www.consultant.ru.

- losses related with genetic consequences of environmental pollution;
- losses caused by the property of the insured unless specified in the contract;
- losses associated with causes which may have been previously known to the insurer at the time the insurance contract comes into force as well as in the period of its duration;
- losses resulting from the constant and systematic emission of harmful substances into the environment;
- losses which are the result of deliberate action or inaction of the insured, etc.

An insurance case is defined as a randomly occurred industrial accident which has led to environmental pollution. In industrial production, for instance, some risks and hazards are subject to monitoring. They are as follows:

- hazards ensuing from the use of harmful chemical substances, which are being used in the production process above the limitations provided by the legislation;
- hazards defined as „several times over” the environmental impact limits;
- hazards defined according to the environmental pollution and potential loss risk reference measurement values.

A major issue which deserves special attention in view of the insurance product in question is the **insurance liability** assessment. Generally, with this type of insurance, the liability of the insurer is limited. The question is - how are liability limitations to be defined for the various projects and on what factors does the insurance amount depend?

The **insurance amount**, as a theoretical value, is defined based on the assessment of the following *quantities*:

Firstly, *the cost of activities for the prevention of accidental environmental pollution and the efficiency of the preventive measures*. For the insuring companies these are additional costs outside the scope of the insurance contract. From the point of view of society and third parties - these costs are an integral „part” of the potential damages. This has led insurers to financially stimulate the insured entities so that they can execute the environment protection measures, which in the end reflects on the insurance amount.

Secondly, *the potential losses* which may result from the impact of the harmful substances emitted into the environment. Such losses are suffered not only by third parties - victims of the pollution, but also by the insured parties - the source of pollution. In such an event, insured entities may be

both of them. The basis for risk assessment on the part of the insurers are the loss „severity” and ‘frequency’ indicators, which serve also as basis for determining the insurance amount when insuring environmental pollution liability.

The next problem, closely related with the above-mentioned one, is the assessment of the **insurance premium**. The amount of the insurance premium depends on the *risk situation* within the company, as well as on *the likelihood of an environmental pollution risk occurring*. In this respect, a risk may occur as the result of „bad use of the technical equipment or as the result of erroneous, unforeseen or random faults in the technical or protective equipment, as well as as the result of aggravating circumstances, such as: insufficient and careless maintenance of the technical installations; faults in their repair; overload above the limitations of the technical equipment, etc”.²

The amount of the insurance premium depends on the location of the potentially hazardous sites - environmental pollutants. This raises a practical question from the insurer's point of view of great social significance: who can be exposed to the risk of pollution of a site and where are the sites located: in an industrial zone, in a mixed residential area or in proximity to a natural reserve? In any of the areas subjected to pollution, *claims* may be raised by third parties which have suffered the negative impact of the risk, namely:³

- in the industrial zone, claims can be made, on the account of failure and lost profit which may ensue from the closing down of the industrial zone during the clean-up;
- in the residential area belonging to individuals claims can be made for indemnification of damages in the event of leakage in cellars,, basements and others;
- in rural areas located in proximity to woodlands or natural reserves, hunters and citizens, may demand legal representation in relation with environmental damages.

The insured pay a relatively low premium by transferring the risk and costs for covering the losses of third parties to the insurer, where the indemnification of the damages may be several times higher than the payments made by the insured. Thus insurers may achieve their profit-making targets by taking into account upon entering into the insurance contract the likelihood of technogenic accidents occurring. It is worth mentioning that when insuring against environmental damage,

² Draganov, Hr. and Ir. Misheva. Имуществено и лично застраховане (Property and personal insurance) София, унив. изд. „Стопанство” , 2008, с. 222 (Sofia, University Publishing House Stopanstvo), 2008, p. 222.

³ Petit guide de l'assurance environnementale, http://www.aig.be/aigeeurope/internet/en/files/Guide_assurance_envirommentale_tcm608-479384.pdf.

it is in the interest of both the insurer and the insured to lower the environmental pollution risk which may result from industrial accidents. The interest of the insured lies in the fact that the amount of the tariff rate is differentiated depending on the level of environmental risk within the enterprise the the environmental protection measures being taken. As far as the insurers are concerned, their profit is directly dependent on the number of accidents and the scope and length of their consequences. That is the reason why insurance companies take part in the funding of environmental protection preventive measures.

Another issue which should be taken into consideration is related to the question of what **time frame** after the occurrence of the insurance case should the insurance liability of the company cover.

Accurately defining the time frame is of crucial importance as the consequences of some technogenic accidents may become apparent after a considerable length of time. After a certain period new circumstances may arise, which could considerably increase the initial estimate of the insurance amount. Practical experience has shown that according to the civil legislation in some countries, the general term for filing such claims is three years. This time frame, however, should be optimized depending on the type of damages expected, the nature of the sites with increased risk and other significant factors.

As regards **the time** of the pollution, there is another issue which arises.⁴ It possible, in that respect, to have a longer period of time between the occurrence of the harmful emission and the claim of the insured. If, between the two dates of the said event, the insured changes their insurer or ceases to pay the insurance premium (due to suspension of their activity, for instance), will it still be possible for them to turn to one of their insurers, and if yes - to which one?

The answer to those questions lies in applying the warranty clause in regard to the terms specified in the insurance contract for Third party liability to environmental pollution. There are four clauses, which all parties to the insurance contract are to comply with and they are as follows:

- the actual occurrence of the event, such as – underground leakage from a fuel tank;
- the occurrence of the damage, for example – „the migration” of the fuel to a nearby field, which leads to depreciation of the value of the plot;
- the time the damage was initially discovered – establishing the damage;

- the time of receipt of the claim by the injured.

The next considerable issue relates to the choice of **organizational and legal form** to be assumed when insuring environmental pollution liability. The question is which of the two forms –

voluntary or mandatory, would be adopted in the respective country.

When taking such a decision, the insurance legislation should take into consideration both the advantages and the disadvantages of the voluntary and mandatory nature of environmental pollution liability insurance.

In **voluntary insurance** the terms and conditions are defined by each insurance company individually. In this case the insurance amount is subject to agreement between the parties to the insurance contract. With this type of insurance, the insurance premium is paid at the expense of the profit, which remains at the disposal of the insurance company. There is only one rule applicable for this type of insurance: the higher the risk of accidental pollution, the higher the insurance premium. In this respect, the voluntary form of insurance stimulates companies to take preventive measures and increases their active interest in taking environmental insurance.

At present, the voluntary form of insurance is the more acceptable form for the following *reasons*:

- in many countries there is insufficient legislation to implement mandatory insurance.
- in a number of countries industry-based methods have not been developed in relation to environmental insurance;
- at a regional level countries lack well-developed pools of statistical data on technogenic breakdowns and accidents.
- the majority of the countries lack the financial means to form a national ecological insurance fund.

Mandatory insurance is implemented with a law defining the terms and conditions of such type of insurance. When ensuring environmental pollution liability, a necessary prerequisite is an exact estimate of the number of environmentally hazardous companies at both regional and national level. With the mandatory form of insurance the insurance amount and the amount of the insurance premium are fixed.

Due to the fact that all potentially hazardous sites are covered, mandatory insurance is in fact more efficient than

⁴ Le marché de l'assurance du risque pollution en France. (The market for pollution risk insurance in France), http://www.centre-cired.fr/perso/quirion/quirion_assurances.

voluntary insurance. The increase in the insurance pool leads to a better risk equation and reducing the costs of insurance protection.

Mandatory insurance is of clearly defined social nature and in itself increases the chances that the injured would receive adequate indemnification for the inflicted damages resulting from environmental pollution.

Bearing in mind that the expenses for covering the consequences are included in the cost price of the produce, then mandatory insurance is a relatively inexpensive venture in a company's risk management.

At this stage, however, there are still no measures for the unification of EU member states legislations regarding the application of mandatory environmental pollution liability insurance.

In conclusion, the particular features of environmental insurance when compared to the other types of insurance are as follows:

- A high insecurity rate when estimating the frequency and severity of the losses incurred by industrial accidents.
- Uncertainty in the development of the interrelations, resulting in the occurrence of an insurance case;
- The opportunity for the occurrence of major losses as the result of environmental pollution in the event of industrial accidents.
- Complexity of establishing the causal relationships between the insurance cases and the manifested consequences;
- The need for considerable insurance reserves for covering the consequences of major technogenic breakdowns and accidents.

In order to secure normal environmental insurance it necessary that the efforts of insurers be focused on the following **guidelines**:

First. Applying a flexible **insurance system**. It is of vital importance, especially when simultaneously processing a large number of insurance events with serious consequences, which, in some cases, may even lead to the insurer declaring insolvency.

Second. Drafting suitable for the purpose **normative and methodical documentation** for environmental pollution liability insurance in the member states of the European union. All of the said measures are related to the need for a clearly regulated legal space for environmental insurance and for unification of insurance legislation between member states

when it comes to insuring environmental risks of technogenic nature.

Third. Applying adequate **product and price policy** designed in view of the insurance interests of the insured companies with hazardous production. The efforts of the insurers should be aimed at improving insurance conditions and rates, respectively at the exact assessment of the insurance liability when insuring environmental risks. It is all of great significance if thoroughness of the insurance protection of injured third parties is to be achieved.

Fourth Improving **the organisation and management** of the insurance company in the process of insuring environmental pollution liabilities, in particular: applying a flexible underrating when assessing environmental risk in insurance⁵, making use of all controlling opportunities in the insurance activity⁶, implementing good practices and achievements and introducing innovations in the field of environmental insurance.

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Finally, effective environmental risk insurance implementation depends on raising people's awareness of its benefits as an insurance product of crucial significance for society as a whole. On the other hand, it is also important to promote it as an indispensable element of a company's risk management in relation with environment protection.

⁵ Misheva, Ir. Застраховане на екологични рискове – състояние и перспективи (Environmental risk insurance - current state and perspectives). Юбилейна научна сесия на УНСС „Трудът и социалната защита – европейски и национални предизвикателства”, София, 17 май 2013 г. (Jubilee scientific session at UNWE „Labour and social protection - European and national challenges”, Sofia 17 May 2013).

⁶ Misheva, Ir. Контролинг в управлението на застрахователното дружество (Controlling in insurance company management). Научни трудове, София, Издателски комплекс – УНСС, том 2, 2014, ISSN 0861-9344, с. 67-96 (Scientific works, Sofia, UNWE publishing house – vol. 2, p. 67-96).

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