

EMERGENCY STATUS MANAGEMENT IN ENERGETIC FIELD . RISK TRANSFER

Gherasim Solovestru **DOMIDE**

*Technical University of Cluj-Napoca, North University Centre of Baia Mare,
gdomide@yahoo.com*

Keywords: risk, insurance,

Abstract: *The state of emergency in the energy sector generates technical problems such as: disruption in the operation of machinery and equipment, replacement of equipment or others needs. Besides the technical problems which appear, also intervene economic and financial issues that generate costs for the replacement of machines, equipment and installations and expenses of compensation to third parties who have suffered losses by disconnecting the power supply or lack of electricity over a longer or shorter period. Modern methods of risk management include also economic solutions. Some of these solutions will be treated in this paper.*

1. INTRODUCTION

Energy sector development and implementation of the latest solutions in the energy field lead to significant decreases failures for production transportation and distribution of electricity to final consumers will appear more risk categories. If risks from the design phase and the construction phase have been removed remain risks in the operational phase.

Reduction or minimization of hazards in companies in the energy field is very important. Dispersion of risk or allocating them to who can control is one of the objectives of risk management departments within these companies. The risk of accidental damage is classified operational risks. It occurs both in-warranty and post warranty period in machinery and power plants.

2. RISK AND RISK TRANSFER

2.1. The risk of accidental damage

The dispersion of accidental damage risks is through many forms. One of these forms is that with new participants at risk. Two new participants at risk are more commonly used in today's economy, they are: insurance companies and investment funds [1]. Risk transfer to insurance companies is more operatively to achieved. About transferring risk to insurance companies we will talk further on.

2.2. Risk transfer to insurance companies

It is relevant to approach classes of insurance by which risks can be underwrite on the Romanian insurance market. Currently, in accordance with Law No. 32/2000 amended and supplemented, on the Romanian insurance market risks can be subscribed for 18 insurance classes. These risks are taken by 42 insurance companies or insurance and reinsurance companies that are authorized by Financial Supervisory Authority [2]. Risks are subscribed directly by insurance companies or insurance brokers. There are cases where risk underwriting capacity is exceeded by an insurance company. In this case there are two variants: the insurance company gives some of the risk on the foreign reinsurance market or several insurance companies are grouping and forming an insurance pool. The insurance pool is set up only for large investment objectives. Regarding the energy sector, this is the only area of the Romanian economy where an insurance pool was created. It was established to ensure fully cover the energetic objective from Cernavoda nuclear power plant [3].

Within the 18 insurance classes to which we referred are insurance policies grouped under various commercial forms. To know the main insurance contract terms and insurance policies that can be used to cover risks in the energy sector we will do an overview of these insurance classes.

2.3. Risk transfer through insurance policy for accidental damages to machinery and industrial equipment

Insurance policies for machines, installations and equipment covering risks of accidental damage are made only for legal entities, in energetic sector or other fields as well. The policy concludes on the basis of general insurance conditions. Under contracts of insurance of machinery, plant and equipment can meet a deductible franchise. This is a portion of the damage, established as a fixed amount or a percentage of the sum insured. This is supported - payed- by the policyholder / beneficiary for each event. Insurance compensation or indemnity

represents the amount that the insurer pays the insured or beneficiary after the occurrence of the insured risk [4].

Insured risk represents an uncertain bad event covered by the insurance policy. It can cause damage both to the insured and to third parties. The period of compensation is the agreed period of time for which the insurer will compensate the additional operating expenses in case of damage covered by the insurance policy.

The loss is a damage suffered by the insured or third party after the insured event. In the case of machinery, installations and equipment damage can have partial and total loss. Total loss means that the asset assured was fully destroyed. Therefore repair is not possible, or the cost of the repair would exceed the insured amount. Partial loss means that the asset insured is partially destroyed. By repair, restoration or replacement of (a) parts, it can be restored to its working order. Cost of repair does not exceed the insured amount of the insurance policy and neither the real value of goods at the time of damage.

Negligence in operating is the manifestation of the insured fault or his servants, who did not foresee the possibility of damage to property or goods subject insurance policy. Major force under insurance contracts is defined by law as an unpredictable situation at the date of the insurance conclusion [5].

At the conclusion of an insurance policy for machinery, installations and equipment for accidental damage, the insured objective should be defined by the insurance. On the insurance contract are insured machinery, equipment and plant which corresponded after carrying out operation tests, or under the following conditions: are during operation or break in operation; are in a state of disassembly for cleaning , adjusting or repairing; during moving to another place in the same location;

The insurance covers only the equipment, machines and equipment that are in the location mentioned in the insurance policy.

In the insurance policies for machinery, installations and equipment for the risks of accidental damage are specified also the insured risks. Therefore are covered during the insured period, damages occurred or destruction of machinery, equipment and facilities or their components, which are specified in the insurance policy.

The insurer pays compensations to the insured for equipment, machinery and facilities that have suffered losses from: casting defects or material; errors in installation and / or installation, design errors; negligence in operation; other accidents as: breaking, dismantling, defects or malfunctions of devices of protection, penetration of foreign bodies; pressure; short circuit, electrical or mechanical failure;

For all risk insurance policies, coverage may extend also to: flood, earthquake, landslide, fire, theft.

At the conclusion of the insurance policy insurers states what are the exclusions for which it will not pay any compensation. No liability for damage caused by: operations of war, whether war was or not declared, invasion, action of an external enemy, civil war, rebellion,

revolution, insurrection, strike, civil unrest, dictatorship, military or usurped power, groups of persons malicious or acting connection with any political organization, confiscation, conspiracy, requisition, destruction by order of any government law or fact, or any political authority; nuclear reactions, nuclear radiation or radioactive contamination; willful action or gross negligence of the insured or their representatives; overcharging or forcing machinery and equipment over the maximum allowed capacity; failure by the deadlines provided for periodic revisions in line with the recommendations of the manufacturer or supplier of machinery or equipment provided; damage arising during operation or operation having such as wear, erosion, corrosion, rust; explosion when chemical phenomena; aircraft crash or uninsured buildings collapse; Sonic boom; risks which, by law or contract manufacturer or supplier responsible; defects of the insured property existing at the commencement of validity of the insurance contract; burglary or theft; injury suffered by employees if they were not insured. A part of the insurance policy exclusions for accidental damage to machinery and industrial equipment are covered by all risk insurance policy [4].

The parties may jointly bring changes to the insurance contract, which entered into force on the date agreed in writing by the parties. Within indemnities payed to the insured, the insurer is subrogated its rights against those responsible for producing and increasing the damage.

3. CONCLUSIONS

We can conclude that in addition to constructive technical solutions and cyber surveillance solutions we have also economic solutions to cover potential hazards for energetic domain. Risk insurance policy for accidental damage to the machinery and power plants, insurance policy for professional liability of operators in the energy sector and "all risk" insurance policy are economic solutions at reasonable costs. These insurance products are present in the insurance companies portofolio offer and can be released in a short time to the managers in the energy industry.

REFERENCES

- [1] Financial Supervisory Authority, *Annual report regarding insurance market in 2015*.
- [2] PRIMM, *Insurance Magazine 2014-2016 Collection*.
- [3] A. Leca, V. Musatescu, *Energy Management*, Ed. A.G.I.R., Bucharest, 2008.
- [4] [http://www.omniasig.ro/Machinery-breakdown\(MB\).html](http://www.omniasig.ro/Machinery-breakdown(MB).html).
- [5] I. Urda, *Breakdowns in industry*, Ed. A.G.I.R., Bucharest, 2006.
- [6] Financial Supervisory Authority, *Annual report regarding insurance market in 2015*.