Аннотации статей на английском языке

RISKS OF EXTREME WEATHER EVENTS

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Annotation. The article considers the problems of increasing the number and scale of extreme weather events in the world and in Russia, as well as measures to reduce damage from their manifestation.

Keywords: climate, weather, extreme weather events, assessment of weather risks, criteria for hazardous hydrometeorological phenomena, damage.

ACTIVITIES' CHALLENGES OF THE OIL AND GAS INDUSTRY IN THE ARCTIC: GEOENVIRONMENTAL AND GEOPOLITICAL RISKS

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Annotation. The article is devoted to the issues of geoecology and geopolitics in the Arctic. The authors reveal the need for the combined accounting of geoenvironmental (GER) and geopolitical (GPR) risks in the industrial development of the Arctic territory. Particular attention is paid to the transformation of these risks into additional opportunities and threats in the development and implementation of hydrocarbon projects by the oil and gas industry in the Arctic. Consideration of interrelation and interaction of the GER and GPR is necessary for effective strategies management, planning and development business there.

Keywords: geoenvironmental risk, environmental rating, geoecology, geopolitics, oil and gas industry, the Arctic.

NATURAL-TECHNOGENIC GEODYNAMIC AND SEISMIC ACTIVITY AND IMPACT ON HIGH-RISK FACILITIES IN THE ORENBURG REGION

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Annotation. Performed in the complex research area geodynamics of oil and gas fields in the Southern Urals revealed and explore the laws of formation of the neotectonic processes in natural and anthropogenic modified conditions. A method for monitoring modern tectonic processes in the region with the use of satellite systems has been developed. Elements of the methodology are tested at the oil and gas fields in the Orenburg and Samara regions.

Keywords: activity geodynamic, seismic network, oil and gas deposits, efficiency of the technology.

METHODICAL APPROACH TO INCREASE THE VALIDITY OF THE PARAMETERS OF ENVIRONMENTAL RISK INSURANCE IN THE CONTEXT OF LIMITED STATISTICAL INFORMATION IN RELATION TO ACCIDENTS ON THE LINEAR PART OF THE MAIN GAS PIPELINES

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Annotation. In this paper, we present a methodical approach to determining the risks caused by accidents on linear part of the main gas pipelines in conditions of limited statistical information, the distinguishing features of which are the application of the methods of asymptotic theory of the probability of extreme values, deterministic and expert methods for assessing environmental risk, actuarial mathematics and mathematical statistics. The use of the proposed approach allows the insured to have a sound position when entering the insurance market with the purpose of concluding an insurance contract on the best for him conditions.

Keywords: emergency environmental risks, main gas pipelines, insurance, extreme value theory.

METHODOLOGICAL FRAMEWORK FOR IDENTIFYING ECONOMIC RISKS IN AGRICULTURAL ENTERPRISES

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Annotation. The article reviewed the methodology for identifying business risks in enterprises of the agroindustrial complex, consisting of the following steps: the first stage — analysis of the contents of a risky situation, which includes the subject, object and subject of risk; the second stage — consideration of the influence of external and internal risk factors as the source of the occurrence of risk situations; the third stage — after determining the risk situation, select a specific type of risk in the form of a dedicated and inherent traits (we have allocated species and subspecies of economic risks for enterprises of the agro-industrial complex); the fourth stage — identifying target results each received as a risk, that is, getting the loss or profit; the fifth stage — target result bearing negative consequences runs the risk parameters changes due to the influence of external and internal factors and leads to a newly created risky situations, and this in turn leads to the identification of emerging risks. Provided the technique has closed and is constantly updating process to identify economic risks.

Keywords: risk, risk situation, risk identification, enterprises of agrarian sector, external and internal risk factors.

THE METHOD FOR SYNTHESIS AND ANALYSIS OF "FAILURE TREES" BASED ON THE CONCEPTS OF MECHANISM AND EVENTS KINETICS

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Annotation. The method for failure trees analysis is considered. This method is recommended by the standards as one of the main ones for identification of hazards, as well as for determining their causes and forecasting. It is proposed to expand the representation of the failures tree and using the extension to detail the algorithm (procedure) for its synthesis and analysis. The expansion is proposed on the basis of the concepts of the mechanism and kinetics of the undesirable (degradation) process, and also on the basis of the technical state dynamics model. The mechanism is the aggregation of the properties of the object and the factors that affect it. The kinetics are micro- and (or) macroscopic phenomena that arise as the results of summation or accumulation of elementary acts of a motion in a material and construction. The model of technical state dynamics is based on the structuring of a technical object and its states in accordance with the stages of degradation: defect, damage, destruction, failure, pre-emergency and emergency. The proposed extension and the procedure for the synthesis and analysis of the failure trees allows us to typify the representation of the failure trees. This makes it possible to simplify the process of constructing a tree, to initiate an explicit description of the knowledge of experts about the cause-effect relationships of events and the mechanisms of their occurrence. These opportunities are ensure the accumulation of knowledge about undesirable processes (degradation) for different types of objects and are necessary to increase the effectiveness of the process of analyzing the risk of hazard objects by experts.

Keywords: failure tree, undesirable process, mechanism, kinetics, synthesis, analysis, model of technical state dynamics, damage, destruction, failure.

SOCIAL CONTROL OF RISK BEHAVIOR OF THE POPULATION IN THE FINANCIAL AND ECONOMIC SPHERE OF MODERN RUSSIAN SOCIETY

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Annotation. The article describes, through theoretical interpretation, the principal provisions of risk behavior, which is in the focus of social control of modern Russian society. The subject of the research: social risks of the population in the financial and economic sphere and the possibility of their minimization in a market economy. The purpose of the work: analysis of the effectiveness of state regulation and market self-regulation, regarding the creation of conditions minimizing the social demand for risky behavior of Russians. It is concluded that the social control of risk behavior and its results is increasingly being carried out within the framework of the personnocentric management model. Priority tasks are defined to increase the financial solidarity and social responsibility of state authorities and civil society institutions.

Keywords: social risks, social control, institutional practices, asymmetry of risk behavior.