The Role of Oil and Gas Companies in Ensuring the Ecological Safety of the Arctic

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ABSTRACT

Hydrocarbon resources development on the Arctic shelf including Russian Arctic shelf is a strategic task for oil and gas companies as it also ensures the energy safety of the Russian Federation. Important zone of hydrocarbon extraction will be formed on the shelf of the Russian Arctic. Following here is exposed the legal base regulating the ecological safety of the Russian oil and gas complex. The authors underline the reality of the ecological safety problems. The growth of the extraction in the new fields and on the shelf creates new challenges. During the last decade the oil extraction in the offshore regions grew 8.6 times. The annual extraction on the Russian shelf made 1,7 million tons of oil (45% of total extraction) in 2002 and 14,6 million tons – in 2012 (Energyland, 2013). The collaboration of the Russian oil and gas companies with circumpolar partners in the sphere of modernization and technical improvement takes a special significance. The main goal of this work is to prevent accidents. The oil and gas companies play a key role by ensuring the ecological safety on sites by projecting infrastructure development thanks to the use of hi-technologies.

KEY WORDS: Russian Arctic; Oil and Gas companies; Offshore regions; Ecological safety; Fuel and Energy complex; Legal base; Resources development; Federal laws; Norms and documents; Offshore Ice-Resistant Fixed Platform; Oil Spills Response; Equipment.

INTRODUCTION

Strict ecological requirements, severe natural conditions and socio-economic particularities of Arctic Regions determine high claims for ecological, technical and technological decisions. It is very important to pay attention to equipment and materials used during resources extraction and also take into account when the works can be carriedout. Unique ecosystems of Arctic seas and their coasts impose serious limits on possible environmental impact levels. Working on resources development has to be led out with specialcare.

In modern conditions the standard-legal base’s perfection of Russian oil and gas complex is a regular necessity. In connection with the growing extent of pipelines and infrastructure the organizational and legal support of hydrocarbon extraction and transportation safety attract special attention. The safety of the hydrocarbon objects includes industrial, transport, fire securities and labour protection. Ecological safety takes place of the first order. Oil spills in Arctic conditions can have a world-scale disaster character.

ECOLOGICAL SAFETY IN OFFSHORE ARCTIC REGIONS

Offshore Safety

The legal base which regulates safety of the resources development on the shelf can be divided in two main groups: the international norms and legal acts and the national norms and legal acts of the subarctic countries. Arrangements between eight subarctic countries and Arctic Council decisions take an important place in the realization of the Arctic environment protection measures. It is necessary to point out that some of the international standards regarding environment protection have been written specially for conditions in Arctic regions. Such standards are usually preparing for global application. Existing marine standards concerning activity in the Arctic conditions have more technical and designing character and indirectly provide environment protection. International and Russian norms and legal acts were accepted as a guide to maintain the ecological safety in connection with the development of the Arctic shelf resources in Russia. Furthermore the normative and legal regulation of safety problems is carried out in several basic directions: regulations for the emissions in atmosphere, emissions in the marine environment, wastes, ecological control and monitoring (Pavlenko, 2011).

Russian Laws Regulating Fuel and Energy Complex

A federal law “About the Fuel and Energy complex safety” was passed in 2011. This law regulates organizational and legalbases of the safe activity of fuel and energy complex in the Russian Federation. It determines the authorities of the federal and regional governmental executive bodies in this sphere. The law also regulates the rights and responsibilities of the physical and juridical persons possessing the fuel and energy complex equipment. The Department of Energy of the Russian Federation and profile departments prepared several governmental and departmental laws to ensure the safety and anti-terrorist protection of fuel and energy complex enterprises. The necessary standard-legal base of the fuel and energy sector was formed.

Drilling is the most difficult and capital-intensive process during the hydrocarbon resources development and extraction. In Arctic offshore conditions it is a complicated task. It is connected with special technologies, large-scale investments in technical and software support, highly qualified staff expenses. Despite of risk of accidents there are around 1500 offshore drilling operative platforms in the world.