Environment Safety of Oil Resources
Exploitation in Offshore Russian Arctic Regions

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ABSTRACT

Technical particularities of oil deposits development on the shelf make difficult to estimate and prevent possible impact on fragile Arctic ecosystems during the natural resources exploitation. Environment safety in the Arctic Regions is assured by the legal environment protection. The paper shows that the legal base of the natural resources development in offshore Russian Regions is insufficient to promote environment safety in the Arctic. The authors present the measures of legal base development which will provide environment safety of the Arctic Zone of the Russian Federation in future. Existing state system of the ecological monitoring and experience of Russian United Monitoring System programs are presented. It is very important to estimate the ecological damage and liquidate it in time. The responsibility for nature pollution must be strictly defined by the special norm-legal documents. The results of the study can be used for the maintenance of the environment safety in the perspective regions of oil resources development and for the perfection of regional and international oil spills response systems in the Arctic.

KEY WORDS: Russian Arctic; Offshore regions; Ecological impact; Resources development; Environment safety; Arctic zone of the Russian Federation; Norms and legal documents; Monitoring; Ecological damage.

INTRODUCTION

The significant part of the perspective oil resources is concentrated in offshore regions of the Russian Arctic. Extraction of mineral fuel and energy resources is the basis of economic development of the Russian Arctic regions in the next decades. The growing activity of oil production and transportation on the shelf of the Polar areas cause increase of environmental risks. Exploitation of mineral, oil and gas deposits is inevitably connected with environment changes. The scales and character of environmental impact must be defined and limited by corresponding regulating documents. The analysis of ecological and geo-ecological consequences of economic activity in the main oil and gas extraction areas of Arctic regions has shown negative tendency.

During the last 40 years these negative changes of an environment have been observed in macro region. In Russia the norms of pollution considerably exceed the same norms of oil and gas extracting countries. Ecological situation in Russian Arctic regions, and first of all in the areas of concentrated oil and gas extraction, makes actual the problems of management in the sphere of the natural resources exploitation and environment protection.

LEGAL BASE OF ENVIRONMENT SAFETY IN RUSSIA

Imperfection of lows

40 federal laws and 1200 resolutions and orders of the government of the Russian Federation, orders of the ministries and departments make up the standard-legal base of the environment protection in Russia. Their operation extends on all territory of the Russian Federation, including the Arctic Zone of the Russian Federation (AZRF). It is possible to ascertain that the insufficient effectiveness of the environment preservation management and ecological safety in the AZRF is a consequence of imperfection of legal and standard base of the country in the field of natural resources exploitation management.

Thus the situation in offshore Arctic regions is aggravated also in consequence of the fact, that majority of existing documents does not consider specificity of macro region. For any activity in the AZRF nature protection specifications are the same as for others less vulnerable to anthropogenous impact territories (Ishkov, 2011). But legal base is not taking into account that it is much easier to compensate negative influence of nature exploitation in other areas than in fragile Arctic regions, where many important transport centers and industrial objects are situated (Fig.1, 2, 3).

Figure 1. Port Tiksi – Marine gates of Yakutia, important transport center in Russian Arctic