



ENVIRONMENTAL POLICY OF INDUSTRY AND MANUFACTURING COMPANY

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ABSTRACT

The article shows the role of the environmental policy (EP) of an enterprise, organization and industry in the implementation of the national environmental policy, which is the most important component of the sustainable development of the country, both in the environmental and social spheres.

It has been found that the system of the EP implementation to be based on the system analysis and to have no “gaps” within the industry and in the environmental policy management system of the enterprise, organization, industry and the state as a whole.

A systematic approach to the implementation of environmental policy allows achieving high results for all environmental indicators. The correctness of the system approach has been proved on the example of the nuclear industry of Russia. It is recommended to apply this experience in other sectors of the economy.

Keywords: environmental policy, system analysis, relationship of environmental policy of companies and enterprises with environmental policy of economics industries.

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1. INTRODUCTION

Environmental policy is a complex concept that covers all areas of activity and solutions at the interface of ecology and politics implemented at the level of the state, industry and each enterprise.

For a particular industry, it is driven by the peculiarities of equipment and technology in their full life cycle, the relationship with the location and conditions of their application, the use of the best new nature protection available, resource saving technologies, i.e., technologies in accordance with the Federal Law 219, treated as the best available technology.

Environmental policy is also an essential component of social policy, because social ecology and ecology of every human life are gaining more and more right to exist. It is an important and universal social technology aimed at achieving the objectives of society and the state in the name of security and development in the context of relations with the environment.

The work in any industry is closely linked to the industrial ecology and the unconditional fulfillment of all the requirements of environmental safety. The development of any industry provides a long-term program, which is an integral part of national development strategies.

Long-term strategy of development of Russia is based on the principles of sustainable development of the country, which is inextricably linked to environmental issues of environmental protection and ecological safety.

2. ENVIRONMENTAL POLICY OF LARGE COMPANIES

On April 30, 2012, the Russian President approved the "Basic Principles of State Policy in the Sphere of the Russian Environmental Development for the Period until 2030" [1]. Then the Decree of the Russian Environmental Development dated December 18, 2012 came out [2]. The Decree approved an action plan for the implementation of the abovementioned Principles. There has been a 5-year lapse of time that has changed the specific industries and production facilities in these industries. Environmental policy should form a vertical structure (Fig. 1) both on the national scale, and in specific industries.

Today one can say that environmental policies in corporations have been successfully implemented [3 - 6], and they have been developed and implemented prior to the adoption of "Fundamentals of the State Policy in the Field of the Ecological Development of Russia" [3] and served as its basis, as developers of corporations have been actively involved in the development of the state document [1].

Environmental Policy (EP) of the largest Russian corporation - PJSC "Gazprom" [4], acting since 2011, completely corresponds to the vertical structure shown in Fig. 1. It should be noted that environmental policies are adopted by all subsidiaries of PJSC "Gazprom" [6] and have a perfect system of realization [5]. Other companies such as PJSC "OC ROSNEFT", OJSC "Surgutneftegas", OJSC "OC Lukoil" [7-9] have similar documents.

It is logical to assume that the energy industry should also have similar environmental policies. Sectoral system "Neftekontrol" launched, but there must be at least a sectoral concept of the Information System for Environmental Monitoring (ISEM).

However, in the Statute of the Ministry of Energy of the Russian federation, features such as environmental protection, environmental safety, and the implementation of environmental policy are unfortunately not there. [7] None of these functions are found in the Ministry of Industry. The theory of environmental policy and international practice treat it differently [3, 10-14].

In the USA, there is a comprehensively developed environmental policy [13-16]. At the US Department of Energy [15], environmental policy is not only in the functions, it is supervised by high-ranking officials in the rank of Ministers.

In the USA, there is a Secretary of State for Energy. Energy Minister is the Deputy US State Secretary for Energy. There is also the assistant of the Secretary of State for Environment Management environment, in the framework of our understanding - the deputy minister. And this despite the fact that there is still an «Environmental Protection Agency of the USA.» That means that there is an analogue of each ministry of natural resources separately, but there is also an environmental policy in the energy sector, and we do not have it in Russia.

One of the main components of environmental policy in all corporations is environmental management.

The management of environmental protection and ensuring environmental safety should be based on a system analysis.

The primary task of environmental management is to identify problems caused by environmental pollution. For this, control over the state of the environment and risk assessment, which is exposed as a result of contamination of human health, flora and fauna, as well as tangible assets, is exercised. The risk-based approach in our country gets more and more development. A legal framework regulating the conditions of environmental management and responsibility for their violation is formed. On the basis of the legal framework in force at certain territories, as established by law, short and long term plans to improve the environment and environmental protection measures are developed. It is respected that the leading Russian oil companies have adopted and implemented a high-quality environmental policy.

PJSC “OC Rosneft” implements a number of specialized environmental programs for the construction of environmental infrastructure, the introduction of the best environmental technologies, and in the framework of the program for the Elimination of Accumulated Environmental Damage, which has no analogues in Russia, measures are being taken to process oil sludge, drilling waste, reclamation of oil contaminated land “historical heritage”, formed as a result of the activities of past suboil users. Since 2010, during the program, about 1.5 thousand hectares of contaminated and disturbed lands have been reclaimed; over 2 million m³ of drilling and oil sludge was recycled [7].

The company has created an integrated management system for industrial safety, labor and environmental protection. Last spring, the certification organization Bureau Veritas Certification recognized the compliance of this integrated system with the international standards ISO 14001 and OHSAS 18001 based on the results of the supervisory audit. It also received evidence that the system complies with the requirements of international standards, that it is being continuously improved.

Environmental program of OJSC “Surgutneftegas” [8] relies on the Ecological Doctrine of Russia, being one of the leading oil companies in Russia, fully aware of its responsibility to society for maintaining a favorable environment and rational use of natural resources in all regions of its activities.

Introduction of the environmental management system in the Company allows reducing environmental risks and reducing costs in the context of tougher state and international regulation in the field of environmental protection. In this regard, environmental friendliness of production becomes a serious factor in the Company’s competitiveness. In the environmental policy of OJSC “Surgutneftegas”, the engineering and environmental approach [8] is of interest to the solution of production problems, as it contributes to the emergence of

new scientific and technical developments, especially in the oil and gas industry, which in modern conditions is the customer, the “locomotive” for the development of new technological solutions, aimed at reducing use of environmental resources and energy consumption.

3. OIL COMPANIES ENVIRONMENTAL STRATEGIES

Oil companies of Russia, among which one of the first is OAO NK “LUKOIL”, make a considerable contribution to the rise of the domestic economy, the improvement of the social sphere and the strengthening of the state [8]. It is not easy to be the first, but it is even harder to stay in the front row. For this, the burden of one’s own responsibility must be heavier than the burden of external obligations. This condition is observed in all areas of activity of OAO NK “LUKOIL”, including in the field of environmental protection, where the main goal of the company is to minimize the negative impact of production facilities on the environment. Always and everywhere, if possible, OAO NK “LUKOIL” seeks to ensure that the level of this impact is below the normative [8].

Unfortunately, in all environmental policy of oil companies, little attention is paid to environmental safety.

According to the authors, it should be:

- adopt the Law of Environmental Safety;
- expand the application of the risk-based approach;
- The first task of all Eps is to consider environmental safety.

Oil is the main item of Russian exports, accounting for 33% of exports in monetary terms (together with oil products – 49%). In addition, prices for the third main component of exports – natural gas – depend significantly on the level of prices for oil and oil products.

Oil production in Russia since the early 2000s is steadily growing, although recently the growth rate has slowed down, and in 2008 there was even a slight decrease. Since 2010, oil production in Russia has overcome the bar of 500 million tons per year and is confidently holding above this level steadily rising. No one needs to be convinced that oil and gas are the backbone of the Russian economy. But the life and health of people according to all legislative acts from the Constitution and through all legislation is priority number 1. Therefore, environmental safety must take a worthy place in the EP of oil companies.

Along with the large vertically integrated oil companies (VIOC) small and medium-sized independent oil companies (VOCs) operate in the oil sector of Russia. This type of enterprise attracts much less attention than oil giants. However, it is the NOC in its activities that are particularly active in using new technologies. These companies see the main objective of the competitive advantage in that it is necessary to have an ISO-14000 certificate. It is not difficult to get this certificate. There are a lot of offers in the Internet. The trouble is that this does not save us from numerous violations in the sphere of environmental protection and, most importantly, in ensuring environmental safety.

This situation cannot but cause concern, since environmental safety is not only the preservation of the environment, but also the life and the health of people. Fig.2 shows the mechanism of the “rupture” in the system of realization of EP.

The imperfection of the environmental management assessment system is that the presence of a certificate of compliance does not guarantee the actual implementation of the EP. It is proposed to create this Sectoral ISEM and the use existing corporate data in the sectoral system to solve this problem [10]. The purpose of OISEM is to provide complex

multi-level information support for business processes ensuring environmental safety of development and exploitation of hydrocarbon deposits [11, 12].

In order to ensure high quality of data and transparency of the information environment, the system forms a single information space for all levels of management (Figures 3, 4).

1. Sectoral, corporate governance:

- management of the requirements for the organization of indicators collection in the Group's production organization, the form and timing of the transfer of indicators to the Sectoral Center, the list and structure of the indicators;
- planning, organizing and analyzing the results of Industry Supervision;
- prompt response to events related to excessive environmental impact;
- Consolidation and analysis of State and corporate reporting data.

2. Production activities management

- update of the control values defined by the regulatory documents: boundaries of specially protected areas, MACs, etc.;
- planning, monitoring and analysis in terms of obtaining permits; payments for negative impact on the environment; production monitoring; activities on observance of standards and norms in the field of environmental protection and rational nature management;
- interactive modelling of the events development in case of emergencies in order to organize operational measures to eliminate the consequences;
- preparation of materials for investigation of the causes of emissions of harmful substances into the environmental legislation, regulations, standards for environmental protection;
- Collection of indicators and the formation of state and corporate reporting.

A system approach in contrast to the often used "light path" implies a certain scope of work for the implementation of environmental policy at every stage and provides a real opportunity to implement feedback that ensures the implementation of all planned activities (Fig. 5).

4. NUCLEAR ENERGY ENVIRONMENTAL PERFORMANCE

In the nuclear industry, the environmental security system is not built as shown in Fig. 2. For example, JSC "Concern Rosenergoatom" (Fig. 6) does not have a gap, and strict observance of all principles and commitments laid down in the environmental policy, is provided by both technical and organizational measures. This does not prevent the legal obtaining of certificates and complying with ISO 14000.

The results of the implementation of the State Corporation "Rosatom" policy speak for themselves. All indicators: emissions, waste, etc. are steadily declining. Their share in the total negative impact on the environment is constantly decreasing relative to the share of cost when compared with the share of the negative impact, which is an order of magnitude greater. (Figures 7 - 10).

The high results of the implementation of the environmental policy in SC Rosatom is evidenced by the fact that, for example, in 2015 no nuclear power plant was fined for violating environmental protection legislation, and expenses aimed at protecting the environment are 15 times higher than the payment for negative impact.

The environmental performance of nuclear energy [18] is higher than any other energy sector.

5. CONCLUSION

1. Environmental policy is an important element of public policy. It should be based on the system analysis and should not have open-loop units. Fundamentals of the state environmental policy should lay down the basis for the sector's environmental policies, and that, in turn, is the basis for the environmental policy of corporations, enterprises or organizations within the industry.
2. There are often no issues of environmental safety, based on a risk-based approach in the ecological policies of the economy sectors.
3. Corporations that have built a system of environmental policy on the basis of system analysis have achieved high rates in reducing emissions, discharges and waste disposal and environmental safety is assured.

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