

ENVIRONMENTAL PROTECTION IN RUSSIA: THE EVOLUTION FROM STRICT ENFORCEMENT MEASURES AND ENVIRONMENTAL COMPLIANCE CONTROL TO NEW COMBINED APPROACHES BASED UPON PREVENTIVE STRATEGIES

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SUMMARY

This paper analyzes the current status of environmental protection in Russia, including the gaps and new challenges to improve the state environmental system. It discusses all the components of the state system for environmental protection in Russia, including ecological legislation, economic and administrative enforcement instruments, institutional arrangements, and the system of environmental compliance control. The paper also describes new strategies for environmental protection in Russia, which range from the “end-of-pipe” approach to pollution prevention strategies (through the Technical Regulation, Best Available Techniques, voluntary instruments, and “cleaner production” methodology).

1 INTRODUCTION

During the 20th century, Russia’s economic crises limited the rate of environmental destruction. However, the transition during the last five years to improved economical conditions has been characterized by the extensive growth of industrial production, accompanied by an increased impact to the environment resulting from both extensive use of natural resources and environmental pollution due to implementation of old technologies. The main ecological problems in Russia caused by environmental pollution are:

- the high level of air pollution resulting from both industrial emissions and transport pollutants emission at urban centers;
- increasing water pollution due to industrial discharges;
- continuously increasing levels of hazardous wastes generation;

—soil pollution, plant cover depletion, landscape degradation, lack of biodiversity.¹

All these reasons created the necessity of elaborating and putting into the force of the state system for environmental protection. In Russia, the system is characterized by strict enforcement measures and ecological compliance control. The “end-of-pipe” strategic approach is not leading to pollution prevention and gives no stimulation for environmental protection.

2 STATE SYSTEM FOR ENVIRONMENTAL PROTECTION IN RUSSIA: CURRENT SITUATION

2.1 Main Components of the State System for Environmental Protection in Russia

As any system of management, the state system for environmental protection in Russia consists from the following main components:

- Legislative basis;
- Enforcement instruments and institutional framework;
- Compliance control and supervision;
- Informational resources; and
- Analysis of results and improvement of the system

2.2 Strategic Approach and Legislative Basis for Environmental Enforcement and Compliance in Russia

2.2.1 Legislative Basis

The current legislative framework in the field of environmental protection in Russia consists of the set of federal laws and many “under-law” legislative acts (Governmental Regulations, Directives, etc.) for each of those laws. The most important “ecological” laws in Russia are the following:

- Federal Law “About Environmental Protection” (2002);
- Federal Law “On Environmental Impact Assessment (Ecological Expertise)” (1995);
- Federal Law “On Specially Protected Areas” (1995);
- Federal Law “On Atmospheric Air Protection” (1998);
- Federal Law “On Wastes of Production and Consumption” (1998);
- Water Code of Russian Federation (1995);
- Forest Code of Russian Federation (1997); and
- Land Code of Russian Federation (2001).

The above-mentioned legislative acts form the basis for the state policy of the Russian Federation in the field of environmental protection. These laws established the institutional arrangements in the field of environmental protection, both administrative and economic instruments for environmental enforcement and compli-

ance, as well as the set of requirements for enterprises in the field of environmental protection.

The most common requirements for enterprises are: the obligatory environmental impact assessment (so-called ecological expertise) for the planned activities which may cause negative environmental impacts; maintenance of the good quality of environment components (atmospheric air, water, soil, living organisms); non-acceptance of excessive negative impact to the environment; necessity of evaluation of impact to the environment and receiving the special permits for air emission, water discharges, and waste disposal; necessity of payment for the environmental pollution (polluter pays principle); and environmental compliance control.

2.2.2 Strategic Approach: “End-of-Pipe”

Until now, in Russia, the main strategic approach in the field of environmental protection is the “end-of-pipe” approach. The assessment, evaluation, monitoring and control of the actual industrial pollution characterize this approach.

Within this approach, each plant should receive special permits for air emissions, water discharges, and for waste disposal. Such permits set the Emission Limits Values, calculated to meet ambient standards (Maximum Allowable Concentrations), but usually permit pollution values according to the actual emissions of industrial facility.

At the same time, the “end-of-pipe” approach includes the “polluter pay” principle, characterized by the requirement of payment for environmental pollution (ecological fees, fines, and compensation payments for environmental damage). The “end-of-pipe” approach includes environmental compliance controls for working facilities and administrative fees and penalties for non-compliance. Thus, the “end-of-pipe” approach is not leading to pollution prevention and gives no stimulation for environmental protection.

2.3 Enforcement Instruments and Institutional Framework

2.3.1 Economical and Administrative Enforcement Instruments

Administrative tools used in Russia in the field of environmental enforcement and compliance include the following:

- Environmental pollution permitting, which includes the evaluation of Environmental Quality Standards and Emission Limits Values on the base of existing Maximum Allowable Concentrations for the harmful components;
- Environmental impact assessment (ecological expertise); and
- Ecological compliance control.

Economical instruments for environmental protection actually in force are the following:

- Ecological fees. Special obligatory payments for air emissions, water discharges, and waste disposal. Includes the individually calculated payments agreed with Emission Limits Values specified in permits, and 5-multipletime payments when a plant exceeds permissible levels of emissions or operates without appropriate permit.
- Environmental fines. Administrative fines (penalties) for non-compliance. The effectiveness of those fines is limited due to their low rates; it's more convenient for polluters to pay low administrative fine, than implement all the environmental requirements and invest in pollution prevention and control.

All the finances collected from abovementioned fees and fines are accumulated in the Federal Budget of Russia and at the appropriate Regional Budgets. A part of the money collected is spent according to the aimed budget planned for environmental protection activities and for provision of executive authorities carrying out the ecological compliance control.

2.3.2 Institutional Arrangements

In fall 2004, administrative reforms in Russia created a new governmental body: the Federal Ecological, Technological and Atomic Supervision Service (or, in Russian, 'Rostekhnadzor'). According to the Governmental Directive "About the Federal Ecological, Technological and Atomic Supervision Service," this Service is the competent authority both for elaboration of legislative acts in the field of environmental pollution prevention, and for carrying out the ecological compliance control.

2.4 Environmental Compliance Control in Russia

Environmental compliance control includes both permitting and inspection. In Russia, these activities are carrying out by the Federal Ecological, Technological and Atomic Supervision Service.

2.4.1 Environmental Permitting System in Russia

The environmental permitting system in Russia includes the issuance of different permits for environmental pollution (separate permits for air emission, water discharges and waste disposal) and the licensing of hazardous waste handling.

2.4.2 Ecological Control

Ecological control (inspectorate) in Russia is a part of environmental compliance control. According to Russian legislation, there are two types of Ecological Control that currently exist in Russia: Federal Ecological Control and Municipal Ecological Control. With the aim to divide the industrial plants subjected to inspectorate between federal and municipal levels and to target inspectorate resources, the State Register of main polluters was formed and subjected to the Federal Ecological Control; while others are under the scope of Municipal Ecological Control. An additional component of ecological control (inspectorate) is the so-called analytical control and monitoring, carrying out by the laboratories, which belong to the Federal Ecolog-

ical, Technological and Atomic Supervision Service.

2.5 Analysis of Results and Needs to Improve the State System for Environmental Protection

The State system for environmental protection in Russia based upon the "end-of-pipe" approach shows insufficient effectiveness. The main gaps occurred from the strict enforcement measures combined with low rates of non-compliance administrative fines, which do not stimulate plants to prevent environmental pollution and are not leading to environmental compliance.

Moreover, new challenges in the field of environmental protection arise from market forces: industrial plants certified for the ISO 14000 compliance have an advantage in selling their products in the international market.

All the above-mentioned reasons require improvements to the State system for environmental protection in Russia. The preferred way toward such improvement seems to be the development of an environmental compliance promotion policy by government, including provisions for a broader application of "cleaner production" measures and other preventive strategies.

3 THE EVOLUTION OF STRATEGIC APPROACHES: FROM "END-OF-PIPE" TO POLLUTION PREVENTION

Nowadays, environmental enforcement and compliance systems in Russia are evolving from "end-of-pipe" to new preventive strategies. Russian officials, elaborating the new approaches for environmental compliance promotion, were supported by the international assistance within multilateral environmental agreements and other kinds of international cooperation.

For example, the OECD Secretariat provided assistance within the framework of Environmental Action Program Task Force and made a great contribution to improvement of the environmental enforcement and compliance system in

Russia. The Environmental Action Program Task Force provides a lot of recommendations for Newly Independent States countries assisting with capacity building, promoting environmental enforcement and compliance, and reforming permitting system based upon new preventive principles (Integrated Pollution Prevention and Control Directive, "best available technologies," etc).

In addition, the Barents-Euro Arctic Region cooperation by the Cleaner Production Task Force provided appreciable contributions to the reforming of environmental protection approaches in Russia. The Cleaner Production Task Force prepared the Policy Document on "cleaner production," approved by the Barents-Euro Arctic Region Environmental Ministers at the Ministerial meeting in Luleo, Sweden, in August 2003. The policy document includes a set of measures for environmental compliance improvement through the pollution prevention approaches, voluntary instruments, raising awareness, application of the new preventive instruments (Environment Management Systems, ISO 14000, "best available technologies," etc.), and the elaboration of a new legislative basis for "cleaner production" development.

Along with the international experience, Russian officials used national achievements, such as the system of Technical Regulations (2003), for reforming the environmental enforcement and compliance. Currently, the new federal law "About the Common Technical Regulations for Ecological Safety" is under construction and is expected to be approved in 2006. This federal law is expected to be the foundation for the new system of environmental legislation, stipulating the norms for an improved system of environmental enforcement and compliance, based on pollution prevention principles.

At the same time, Russia is preparing the draft law "About the Environmental Payments", which stipulates new principles for economic incentives and targeted financial support actions. For example, industrial plants using "best available technolo-

gies" in their operation, are free from ecological fees; which stimulates investments in pollution prevention.

Thus, taking into account international experience and national peculiarities, the new environmental policy based on preventive strategies is now elaborating in Russia.

4 CLEANER PRODUCTION DEVELOPMENT IN RUSSIA AS A WAY TO POLLUTION PREVENTION

The Ministerial Declaration adopted at the meeting of European environmental ministers in Sophia, 1995, stipulated that "cleaner production" means the continuous implementation of integrated environmental strategies for production and processes, directed to decrease harmful effects on humans and the environment. "Cleaner production" methodology in Russia is considered the universal way to shift perspective from "end-of-pipe" regulation to the preventive strategies and effective mechanism for strengthening environmental compliance and enforcement.

4.1 10 Years of Cleaner Production Program in Russia: Good Theory, More Practice, and Amazing Results

"Cleaner production" development in Russia began in 1994 thanks to activities of Russian-Norwegian Cleaner Production Center. They began the "cleaner production" Program, which consists of three components: (1) the "cleaner production" training program (includes "cleaner production" theoretical base); (2) the financial engineering and investment projects for "cleaner production;" and (3) preparing enterprises to develop Environmental Management Systems and ISO 14000 certification.

The main theoretical principles of "cleaner production" Program are:

- education "from engineer to engineer;"
- revealing the primary sources of environmental problems at the enterprise;
- pollution prevention through projects

aimed at decreasing air emission, water discharges, waste generation and energy saving.

The first steps of "cleaner production" in Russia were focused on training programs at the industrial plants in North-west Russia. During the 10 years of Russian-Norwegian Cleaner Production Center activities in Russia more than 1600 engineers from 600 enterprises were trained. The "cleaner production" Program led both to economical benefits (for each \$1 invested to "cleaner production" Program obtaining the \$2-5 economical profit) and great ecological effect through pollution prevention and energy saving at the enterprises.

4.2 The Governmental Assistance For Cleaner Production And Preventive Strategies Spreading All Over The Russia

The amazing results of "cleaner production" Program introduction in the North-West of Russia created the need to spread the "cleaner production" methodology all over the Russia as a way to prevent pollution. Governmental assistance is necessary for "cleaner production" to be an effective mechanism for strengthening environmental compliance and enforcement. The Federal Ecological, Technological, and Atomic Supervision Service is the competent authority for elaboration of legislative acts in the field of environmental pollution prevention, and is taking appropriate steps for "cleaner production" development.

The International Conference "Cleaner Production as a way to Sustainable Development" took place in December 2004 in Russia. The results of the development of Cleaner Production in Russia presented at that Conference shows that in Russia due to mutual interests and common efforts of governmental bodies, non-governmental organizations and enterprises, "cleaner production" become the universal way of achieving a cleaner future through pollution prevention.

5 CONCLUSION

The results of implementation of the current State system for environmental protection in Russia, based upon the “end-of-pipe” approach, shows it to be insufficiently effective and needs improvement. The preferred way to achieve such improvement seems to be the development of an environmental compliance promotion policy by government, including provision for a broader application of preventive strategies, economic incentives and targeted financial support actions. Cleaner Production methodologies are considered the integrated way to shift from “end-of-pipe” regulation to the preventive strategies due to the good results of its 10-years realization in Russia.

6 REFERENCES

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