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GAZPROM PRIORITIES IN THE FIELD

OF RATIONAL NATURE USE AND

ENVIRONMENTAL PROTECTION

Efficient use of natural resources and reduction of environmental expenses are an integral part of activities of the world's biggest gas producer, Gazprom Open Joint Stock Company.

By increasing each year the production and transportation of gas, gas condensate and oil, promoting a sound modernization of the Unified Gas Supply System, the Company is successively reducing negative effects on the environment.

Gazprom environmental protection activities are governed by relevant international and Russian legal documents defining the basic requirements to reasonable environmental management, environmental protection and industrial safety.

Gazprom commitments regarding observation of such requirements are defined by the basic corporate documents of the Company.

Gazprom Charter states that the Company offers the prospect of "elaboration and carrying out measures aimed at environmental protection, protection of the original habitat and traditional way of life of minority ethnos, and also rational use of energetic and environment-friendly technologies and energy-saving equipment for field development, production, transportation and processing of hydrocarbons and conducting other production and commercial operations."

The Company's development concept for the 21st century states that development of new strategic gas production areas in the Far East, East Siberia, water areas of Obskaya Bay and Tazovskaya Bay, at Yamal Peninsula and the continental shelf of the Arctic seas will be facilitated with novel technological solutions and environment-friendly technologies.

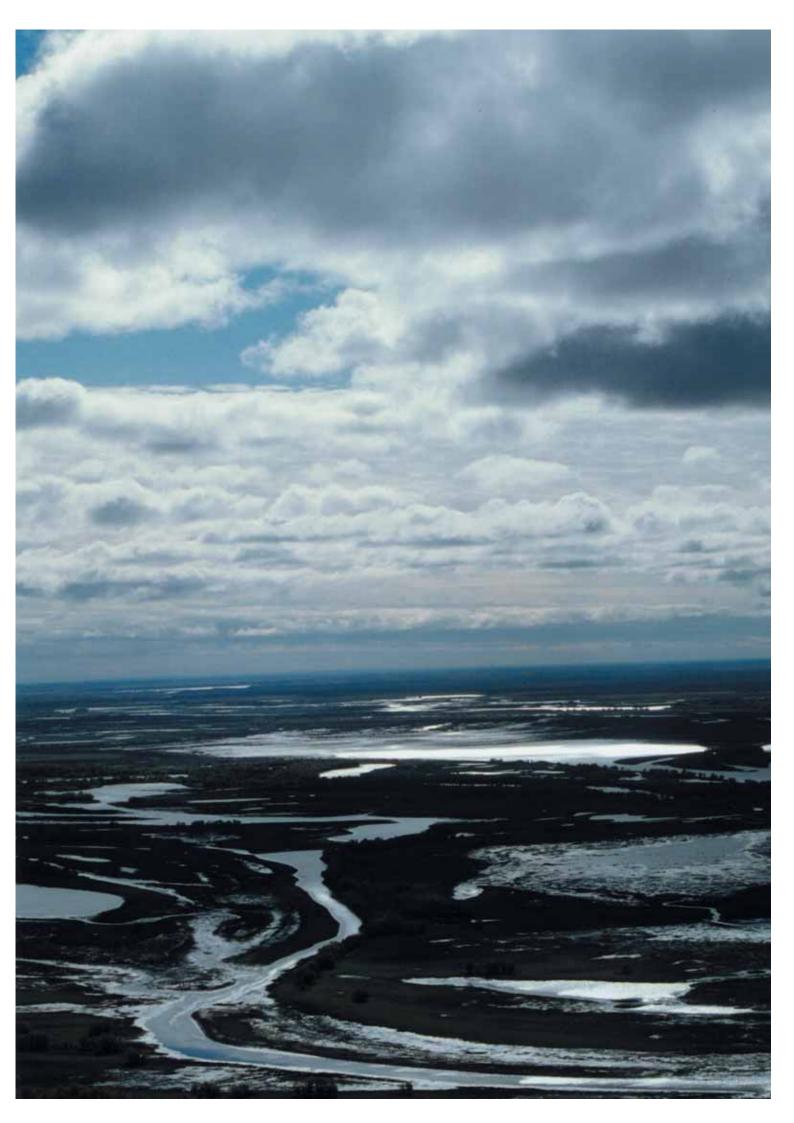
Gazprom environmental policy focuses on the following priorities:

- conservation of the natural environment in the area of gas industry facilities, reasonable environmental management;
- providing industrial and environmental safety of construction and operation of gas production, processing, transportation and storage facilities;
- providing safety of labor and protection of health of the sector's employees;
- participation in providing environmental safety of Gazprom facilities.

All the above guidelines are always the focus of attention of not only the parent Company, but also its subsidiaries. Environmental protection programs are prepared each year, and their financing and implementation, operational control of their performance is exercised.

Solving of environmental problems is accompanied by scientific research and innovation activities focused on the enhancement of efficiency of hydrocarbons production and processing, industrial and environmental safety of production facilities, and improvement of the industrial environmental control system.

Modernization and technical upgrading of the existing gas transportation systems with a view to enhance their efficiency, reduce hazardous emissions and prevent emergency situations, as well as to conduct an in-line inspection of main pipelines for timely identification and rectification of faults are of high importance in solving environmental problems.





Gazprom carries out a large-scale energy-saving program, proceeding with a conversion of motor vehicles to a more environment-friendly gas-based motor fuel, installation of gas services in constituent territories of the Russian Federation together with regional authorities, thus also contributing to improvement of the country's environmental situation.

To develop and implement corporate policy in the field of environmental protection, labor safety and health of employees at the place of production, and also to translate it into reality in the context of regional and production know-how, Gazprom subsidiaries elaborate and adopt their own documents determining the principles of environmental and other responsibilities in all kinds of business activities.

**BASIC DOCUMENTS.** 

**ACTS, CONCEPTS REGULATING** 

**GAZPROM ENVIRONMENTAL** 

**PROTECTION ACTIVITIES** 

In its everyday activities Gazprom strictly abides by requirements of a number of documents, acts and regulations.

Legislation of the Russian Federation includes:

- Constitution of the Russian Federation;
- Russian Federation Act "On Environmental Protection";
- Water Code;
- Land Code;
- Forest Code:
- Act on environmental territories subject to special protection;
- Act on protection of rights of minority indigenous ethnos of the Arctic area;
- Environmental doctrine of the Russian Federation;
- Other legislation acts.

International agreements for protection of environmental components are used during implementation of projects that are implemented in the border areas or can produce a trans-border effect.

Regulations on environmental protection and reasonable use of natural resources are taken into account, including:

- national environmental protection standards of the Russian Federation;
- ISO 14000 series national environnemental protection management standards;
- Gazprom standards regulating environmental protection and efficient use of natural resources elaborated in addition to national and international standards.

These documents include, in particular:

- Gazprom environmental management system regulation;
- Environmental protection management concept for Gazprom facilities based on GOST R ISO 14000;
- Uniform occupational safety management system regulation of Gazprom.



In order to ensure efficient environmental protection activities, their coordination at all levels and in all operational spheres of the Company, the Environmental Management System (EMS) was established and it continues to operate.

Gazprom EMS currently unifies the efforts of over two thousand specialists of the Company responsible for environmental protection and reasonable use of natural resources.

Gazprom environmental management system is based on the following interrelated components:

- legal base federal and regional environmental legislation, international treaties and agreements in the field of environmental protection, national and international guidelines, standards, requirements and methods, corporate guidelines and standards;
- organizational structure Energy Saving and Ecology Office in the Administration
  of Gazprom, Ecological & Analytical Center of Gas Industries, environmental services and ecological analysis laboratories of subsidiaries and organizations, specialized environmental units of scientific and design organizations;
- functional structure a set of functions stipulated by law, fulfilled at all levels of the Company for environmental protection, including inventory and rate-setting for adverse environmental effects, planning and fulfilling environmental protection activities, exercising industrial environmental control, doing environmental monitoring, statistical accounting of effects and execution of reports;
- information base electronic databases, including governmental and corporate statistics on environmental situation and effects, environmental monitoring results, scientific developments in the field of environmental protection, environmental protection guidelines and requirements system, corporate environmental protection reports and other information being a part of the corporate information and analytical system (IAS Ecogas).

Modern environmental management systems of Gazprom are intended for ensuring high quality of environmental protection solutions at all phases of building of the Company's facilities (design, construction, operation).

In 2005, works were underway in Astrakhangazprom, Volgogradtransgaz, Severgazprom, Surgutgazprom, Noyabrskgazdobycha and other subsidiaries to build environmental management systems.

Practical activities focused on building of the environmental management system are now combined with the quality management system, thus expanding the opportunities of the two systems.

An example of such system is Yamalgazinvest integrated quality and ecology management system certified by TUV CERT international certification authority.

All organizations develop environmental protection plans or programs (as an independent document or a section in general management and operational arrangement plan) and submit their performance reports. The environmental protection service has at its disposal periodically updated bases of laws and legal documents.

**GAZPROM ENVIRONMENTAL** 

**MANAGEMENT SYSTEM** 



The Company is involved in the elaboration of documents on the environmental management system. For instance, Mostransgaz Regulation on environmental protection management was worked out and approved in 2005. Implementation of scheduled activities for improvement of the environmental protection management system was a part of administrative and business management of the gas transportation enterprise.

In its turn, the organizations' management inspects environmental aspects of branches' activities. Instructions of the state supervision authorities and the organizations' management in rectification of faults are carried out by all environmental services. To ensure efficiency of environmental protection facilities appropriate preventive activities are underway.

## INDUSTRIAL ENVIRONMENTAL CONTROL AND ENVIRONMENTAL MONITORING

Industrial environmental control (IEC) and environmental monitoring (EM) are core constituents of the environmental management system. They have been put into practice in all subsidiaries and organizations of Gazprom.

The scientific and methodological support of functions and improvement of the IEC and EM system is provided by research organizations of Gazprom, Ecological & Analytical Center of Gas Industries and VNIIGAZ.

The IEC systems of Gazprom subsidiaries are designed for coping with the following tasks:

- providing everyday environmental safety of operating activities by efficient identification of deviations in the rated negative environmental impacts;
- providing general safety of operations and observation of technological regulations through indirect identification of deviations in technological parameters of operation of the equipment;
- providing informational support of environmental protection planning and taking other measures, including inventory of impacts and development of environmental protection rates, as well as execution of state statistical reports;
- providing objective nature of charges for negative environmental impact by calculation of such charges on the basis of real, not standard prescribed, impact parameters; establishment of proof base to justify such charges;
- making assessment of efficiency of environmental protection activities, including gas and water treatment systems.

The environmental monitoring system for the Company facilities' potential impact area is usually operated within an integrated information space with IEC systems, thus making it possible to obtain integral information required for timely preventing of hazardous environmental situations and assessment of real environmental consequences of adverse industry impacts.



The EM systems existing in Gazprom are used for carrying out the following tasks:

- observation of basic environmental parameters (atmospheric air in populated areas; water bodies, soil areas) in the areas of a direct effect of the Company's production facilities;
- providing an efficient notification of all the services concerned and, if necessary, the population of a hazardous environmental contamination;
- providing informational support for justification of environmental protection activities aimed at a reduction of potential environmental hazard to production facilities.

Environmental monitoring mainly includes measuring procedures, i.e. sampling, chemical and bacteriological analysis, remote sensing and automated measuring.

Environmental control involves, as a must, along with measuring procedures, administrative inspections of compliance with legislative requirements.

Therefore, basic organization departments responsible for monitoring include certified chemical laboratories, and industrial environmental monitoring is exercised both by own and third parties' laboratories, and by the Company' and subsidiaries' employees: full-time ecologists and environmental protection offices' employees. Now the IEC functions in the Company are often vested in specialized units, such as engineering centers having the status of subsidiaries' branches. Such specialized branches are now available in 14 of 24 subsidiaries of the Company.

Regulations on industrial environmental monitoring as a part of environmental management were developed by Astrakhangazprom, Nadymgazprom, Yamburggazdobycha and some other Companies.

IEC and EM activities are organized under special plans and schedules of subsidiaries.

The leading organizations in the field of industrial environmental monitoring are Nadymgazprom and Yamburggazdobycha.

The principal (integrated) type of environmental control is environmental support of construction operations. In 2005, it was exercised by E&ACGI during construction of Yamal-Europe main pipeline (Torzhok-Belostok section), Pitergaz (main pipeline Tyumen Region's North Area (SRTO) - Torzhok), compressor stations Beregovaya of Russia-Turkey main pipeline.

The most developed environmental monitoring systems are used at the facilities of subsidiaries whose principal business is the processing of natural gas, such as Orenburggazprom and Astrakhangazprom. An up-to-date EM system was built at Goluboy Potok main pipeline operated by Kavkaztransgaz and Kubangazprom.



## **ENVIRONMENTAL ASPECTS**

**OF GAZPROM OPERATING** 

**ACTIVITIES** 

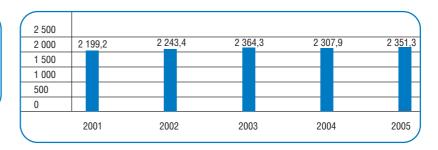
**GROSS EMISSIONS** 

**OF CONTAMINANTS TO** 

THE ATMOSPHERE, THOUSAND TONS

## **ATMOSPHERIC EMISSIONS**

Overall gross emissions of contaminants to the atmosphere in 2005 amounted to 2351.3 thousand tons, which was 1.9 % higher than in 2004. The higher amount of emissions is concurrent to higher indicators of Gazprom production activities in 2005.



It is worthwhile to note that the growth of emissions is within the approved maximum allowable emissions (MAE). In this case, the contaminants mass discharged to the atmosphere as temporary approved emissions (TAE) decreased against the previous year by almost 120 thousand tons, and the mass of overrated emissions in 2005 was 130 thousand tons less than a year before. As a result, the percentage of temporary approved and overrated emissions in the overall mass of contaminants emitted to the atmosphere reduced from 20 % in 2004 to 9.8 % in 2005.

Temporary approved emissions of nitrogen oxides, on an annual basis, decreased from 16.6 thousand tons in 2004 to 5.14 thousand tons in 2005. Emissions of nitrogen oxides, within TAE and overrated against the previous year decreased by almost 4 times and amounted to 7.52 thousand tons (29.18 thousand tons in 2004). Temporary approved and overrated emissions of methane has decreased twofold. Reduction of the quantity and percentage of temporary approved and overrated emissions is a result of the air protection activities of the Company's subsidiaries oriented, first of all, at a reduction of the emissions leading to exceeding sanitary standards for the quality of air.

The quantity of trapped and neutralized contaminants discharged by stationary pollution sources in 2005 was equal to 127.2 thousand tons, or 9.0 thousand tons (7 %) more than in the previous year.

The structure of contaminants emissions did not change significantly. Methane's share in emissions was equal to 61 % of the contaminants discharged to the atmosphere, by mass.

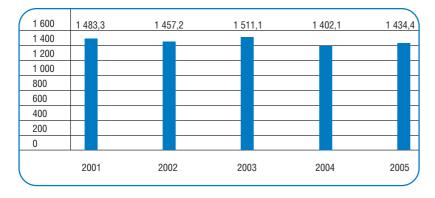
The amount of emissions of carbon, nitrogen and sulfur oxides was equal to 616.1 thousand tons, 180.4 thousand tons and 71.1 thousand tons, respectively. Total percentage of other solid and gaseous substances, including volatile organic compound, was about 2.1 %.

# STRUCTURE OF ATMOSPHERIC EMISSIONS OF CONTAMINANTS IN 2005, % Methane – 61,0 % Carbon oxide – 26,2 % Nitrogen oxides – 7,7 % Sulfur dioxide – 3,0 % Other – 2,1 %



The dynamics of emissions, with respect to 2004, was different for some contaminants.

Methane emissions to the atmosphere slightly grew in 2005 and was equal to 1434.4 thousand tons (2.3 % more than in the previous year), due to the increased quantity of gas supplied to the Unified Gas Supply System.



GROSS EMISSIONS

OF METHANE, THOUSAND TON

The emissions of sulfur dioxide (over 97 % of which is traditionally discharged by two enterprises of the Company which process sulfur-containing materials, Astrakhangazprom and Orenburggazprom) decreased by 0.9 thousand tons. The reduction of sulfur dioxide emissions was mainly achieved at the Astrakhan gas processing plant which completed optimization of process parameters at the units responsible for sulfur recovery from sulfur-containing gas emissions.

The emissions of carbon oxide decreased by 7.0 thousand tons, or 1 % of overall emissions of this substance. The reduction of carbon oxide emissions was achieved due a number of measures, including further modernization of obsolete and worn drives of gas-pumping units and power plants at Tyumentransgaz facilities.

Emissions of nitrogen oxides grew by 9.5 thousand tons (5.6 %). It is mainly due to the growth of scale of the Company's production activities. For instance, Tyumentransgaz with its almost 39 % of overall NOx emissions for all subsidiaries demonstrates that the growth of atmospheric emissions of this substance is linked with more intense operation of compressor stations' process equipment.

In 2005, some enterprises of the Company made an inventory of emissions sources and growth of indicators, partly linked with identification and registration of new atmospheric contamination sources at the line part of pipelines.

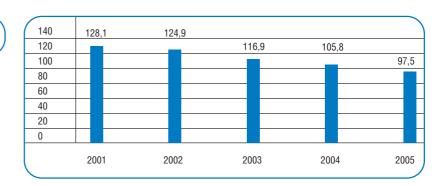


## **WATER RESOURCES**

A reduction in water consumption by Gazprom enterprises achieved in previous years continued in 2005. Overall water consumption decreased by 8 million cu.m as compared with the previous year and was equal to 92.2 % of the level of 2004. Such reduction was mainly caused by a reduction of water quantity transferred to other entities, and also reduction of waste water taken for treatment from others. Waste water removal was equal to 49.1 million cu.m, slightly more (1.6 %) than in the previous year. Water intake from subsurface sources decreased by 2.6 million cu.m. Therefore, along with overall reduction in water consumption, Gazprom subsidiaries were systematically substituting subsurface water for water from the surface sources.

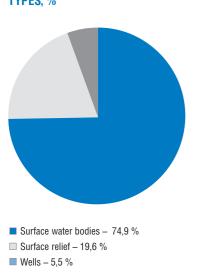
Due to further improvement of the Company's structure, reasonable use of water resources and reduction of losses, use of water decreased by 9.3 million cu.m (14.5 %) as compared with the previous year.

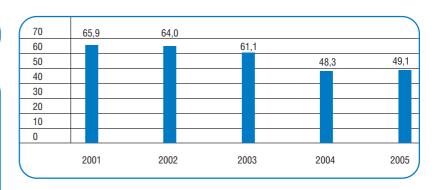
## WATER CONSUMPTION, MILLION CU.M



## WATER DISCHARGE, MILLION CU.M

## WATER DISCHARGE STRUCTURE BY RECEPTACLE STRUCTURE TYPES, %





The amount of water used for production needs was equal to 26.5 million cu.m and remained at the level of the previous year. Overall quantity of circulating and reused water in the accounting year was equal to 270.8 million cu.m, as compared with 312.4 million cu.m in 2004, due to the reduction in overall water consumption.

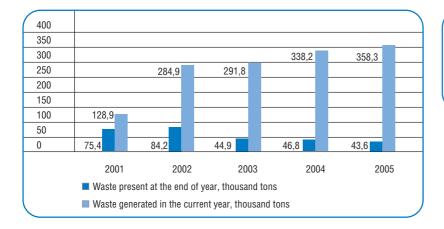
As in the previous years, over 70 % of waste water was discharged in 2005 to surface water bodies. The quantity of such water decreased by 2.5 million cu.m in 2005 as compared with the previous year.



Treatment of waste water has improved, particularly due to commissioning of new treatment facilities and modernization of existing facilities. These activities resulted in reduction of contaminated waste water discharge by 2.5 million cu.m.

## **WASTES**

The mass of toxic wastes stockpiled within the territories of the Company's enterprises by the end of 2005 decreased by 3.2 thousand tons (6.8 %) as compared with the same indicator of the previous year. This level was achieved due to a 40.4 thousand ton (22.6 %) increase of the waste mass transferred to others. One more reason for reduction of the accumulated mass of wastes was the 23.9 thousand ton growth of the quantity of wastes used and disposed of by enterprises. The mass of toxic wastes neutralized by the Company's enterprises grew by 3.9 thousand tons (26.3 %).



DYNAMICS OF AVAILABILITY

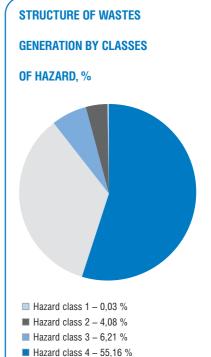
AND FORMATION OF WASTES,

**THOUSAND TONS** 

Therefore, positive trends were prevailing in the field of waste disposal, despite development of production and significant repair activities, as compared with 2004.

The wastes generated by the Company's enterprises are mainly (over 90 %) low-toxic wastes referred to the least hazardous 4 or 5 class of hazard.

The mass of toxic wastes generated by Gazprom enterprises in 2005 was 5.9 % higher than in 2004. The exceeding of 2004 year's indicators was equal to 20.1 thousand tons. The growth of wastes mass was demonstrated by the enterprises engaged in active construction and expansion of operations (Astrakhangazprom, Volgogradtransgaz, Volgotransgaz, Nadymgazprom). At the same time, some companies (Surgutgazprom, Bashtransgaz, Yamburggazdobycha) demonstrated a reduction in wastes generation.



□ Hazard class 5 – 34,52 %



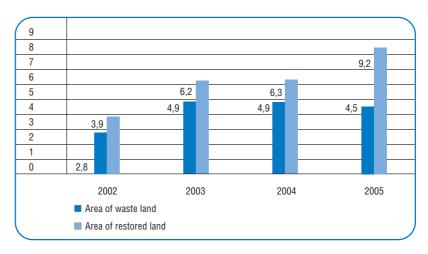
## **LAND RESOURCES**

The area of land restored by organizations and companies of Gazprom in 2005 increased by 35.3 % (9.2 thousand hectares) with respect to 2004. Since restoration activities stepped up in 2005, the area of waste land decreased by 0.4 thousand hectares with respect to 2004.

AREA OF WASTE

AND RESTORED LAND,

THOUSAND HECTARES



A growth of restoration activities in 2005 was demonstrated by most subsidiaries. A majority of the companies have fully restored the waste land. The most considerable volume of restoration work was done by Yamburggazdobycha (2096 hectares), Mostransgaz (921 hectares), Volgotransgaz (860 hectares) and some others.

**EXPENSES FOR ENVIRONMENTAL** 

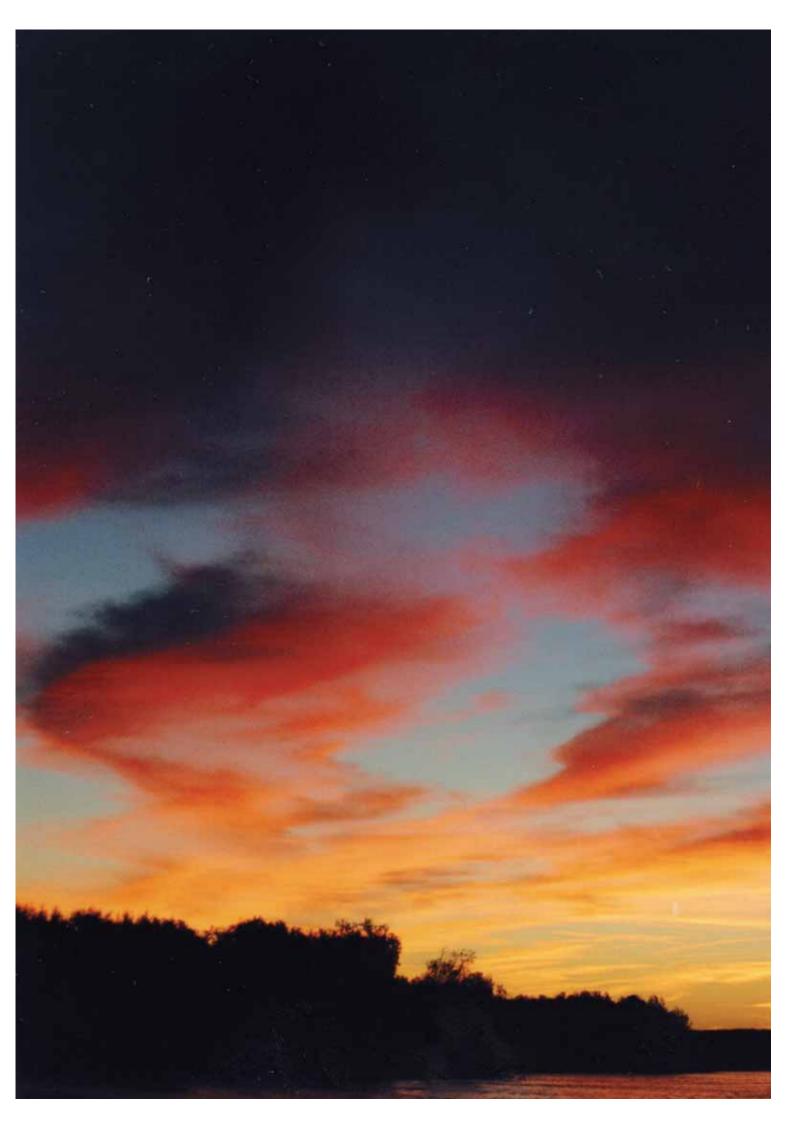
**PROTECTION AND** 

**ENVIRONMENTAL CHARGES** 

The overall amount of funds applied by Gazprom in 2005 for environmental protection exceeded 6 billion rubles (5.5 billion rubles in 2004). Capital investment to environmental protection in 2005 was equal to 1.2 billion rubles (20 % more than in 2004). 0.45 billion rubles were spent for overhaul of environmental protection assets by enterprises of the Company (0.52 billion rubles in 2004).

Current expenses for environmental protection in 2005 grew 9.5% as compared with the previous year and were equal to 4.37 billion rubles (3.99 billion rubles in 2004). The costs structure has slightly changed.

The expenses for protection of water resources were equal to about 60 % of overall current expenses (2.6 billion rubles) in the accounting year, the same as in the previous years. 194 million rubles more (26.9 %) than in the previous year were spent by companies for protection of atmospheric air. Current expenses for restoration of land grew almost by a third and were equal to 0.19 billion rubles. The expenses for disposal of operating wastes increased by more than 50 % in 2005 with respect to 2004.





The amount of environmental charges grew by 43 % in 2005 as compared with the previous year and was equal to 281 million rubles. The growth of charges was mainly caused by the growth of tariffs for emissions of methane. A 1000-time increase of the tariff resulted in a 2.6 -fold growth of charge for rated emissions of contaminants to the atmosphere and for the first time exceeded the overall charge for waste water discharge and disposal of wastes. Overall charges for allowable emissions (discharge) of contaminants and wastes disposal grew by 73.3 million rubles

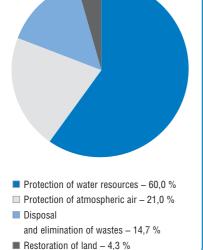
Charges in the manner of penalties for violation of environmental legislation decreased from 3.9 to 0.4 million rubles as against 2004.

## **IMPLEMENTATION**

**OF GAZPROM ENVIRONMENTAL** 

**POLICY IN 2005** 

# STRUCTURE OF ENVIRONMENTAL PROTECTION EXPENSES, 2005, %



The environmental policy was implemented by the Company's administrative structures, research and design institutions, investment companies, subsidiaries of the Company responsible for production, processing and transportation of hydrocarbons:

- investment plans provided for financing of construction of new and overhaul of existing environmental protection facilities;
- budgets of subsidiaries and organizations provided for everyday environmental protection activities;
- innovation programs provided for development and employment of novel technologies, technical equipment and organizational solutions to support improvement of environmental protection measures, and resources/energy saving;
- investment companies, design, construction and operating organizations planned and implemented the requirements of environmental protection legislation, the requirements of the federal executive authorities and environmental guidelines in their practical activities:
- measures were taken to provide occupational safety of the Company's employees.

All subsidiaries dealing with production, processing and transportation of hydrocarbons were involved in inventory and rationing of adverse effects, and obtaining relevant approvals in 2005.

Special attention was focused on obtaining licenses, permits or limits to ensure all forms of environmental management and environmental effects.

All enterprises in good time processed and finalized drafts of maximum allowable (temporary approved) atmospheric emissions rates for contaminants (MAE (TAE)) and discharge to water bodies MPD (TAD). Apart from this, passports of wastes were actively elaborated. For instance, only one company, Noyabrskgazdobycha, during the year prepared, 6 draft MAE rates, 1 draft MPD and 3 draft waste generation rates, executed 4 water production licenses, 2 river crossing licenses, one license for waste water burial and one license for hazardous wastes disposal. Orenburggazprom completed inventory and rationing of hazardous atmospheric emissions from the Company's fixed contamination sources, resulting in issuance of emissions permits. Tomsktransgaz prepared, during the year, MAE rates for all facilities of the Company, and passports for all types of the wastes generated. The wastes passports were also prepared by Lentransgaz. Urengoygazprom completed preparation of passports and obtained a wastes disposal license.



Gazprom principle of strict observation of the legislation requirements in the field of environmental management licensing allowed a reduction to the minimum possible level of supervision authorities' claims to this sphere of business.

Each subsidiary developed and implemented, within the year, an environmental protection plan. For instance, Volgotransgaz implemented 89 environmental protection measures. Kaspiygazprom capital expenditures for environmental protection activities in the accounting year were equal to about 5 million rubles, two times more than in the previous year. A great deal of measures were planned and taken by other subsidiaries of the Company.

The most important activities in these plans were those aimed at the reduction of adverse environmental impacts. The results of 2005 demonstrate certain success in this field, since the share of temporary approved emissions within the overall volume of contaminants discharged to the atmosphere decreased more than twofold, as compared with 2004. Such a reduction was achieved due to a higher efficiency of the gas/air emissions treatment systems, which allowed trapping of 14.3 thousand tons more of sulfur dioxide alone in 2005 than a year before.

The most significant air protection measures were taken at the Company's gas processing enterprises. Sosnogorsk GPZ (gas-processing plant) of Severgazprom has completed an experimental installation of the final filter for pyrolysis waste gas, allowing determination of the best parameters for filtering hosing. Orenburg GPZ (gas-processing plant) upgraded a low-pressure gas collection system in order to reduce hydrocarbons emissions to the atmosphere. Astrakhan GPZ (gas-processing plant) installed to the gasoline tank an improved design pontoon allowing a reduction of hydrocarbons emissions to the atmosphere, and so saving of fuel.

Kavkaztransgaz used the pipeline pressure tie-in process without bleeding natural gas to the atmosphere, thus preventing atmospheric discharge of over 3.2 thousand tons of hydrocarbons. Bashtransgaz replaced obsolete drip odorizers of the odorizing center for automatic odorant dozers, thus allowing a full elimination of cacodorous substance supply to the atmosphere.

The water protection measures taken during the year by the Company's subsidiaries resulted in a reduction of contaminated waste water supply to natural water bodies.

The Company's subsidiaries erected and commissioned new waste water treatment stations (Nadymgazprom, Yamburggazdobycha, Tyumentransgaz, Noyabrskgazdobycha, etc.) Uraltransgaz constructed new waste water treatment facilities for Nevyansky and Shadrinsky LPUMG (Gas Mains Production Division), and overhauled the treatment facilities for Maloistocsky and Dombarovsky LPUMG.

Considerable attention was paid to wastes disposal. Kubangazprom and Yugtransgaz commissioned new ranges for solid wastes. Kavkaztransgaz disposed 269.2 tons of hydrocarbon wastes, including oil sludge generated during cleaning of pipelines cavities, in 2005. In 2005, sludge storage for stockpiling drilling wastes was completed and commissioned for the first time in the Krasnodar Territory. Burgaz completed experimental assessment of efficiency of the oil contamination removal process, resulting in the selection of the best sorbent.



A number of subsidiaries spent significant amounts of funds for restoration of disturbed land in 2005, including the waste land generated in the previous years. A significant restoration was carried out at the facilities of Bashtransgaz, Volgogradtransgaz, Volgotransgaz, Mostransgaz, Noyabrskgazdobycha, Permtransgaz and Samaratransgaz, Surgutgazprom, Urengoygazprom and some others.

Yamalgazinvest investment company put into practice an integrated quality management and environmental protection system characterized by the following features:

- designers, suppliers, builders conduct business operations subject to legislative and standard requirements to environmental protection and reasonable use of natural resources:
- operations are preceded by engineering environmental survey;
- environmental support of construction is rendered, including supervision of full and high quality implementation of the design solutions relating to environmental protection, timely identification and elimination of local environmental faults;
- operations are conducted in close cooperation with territorial administrative and environmental protection authorities.

The high quality of construction/erection activities, as combined with their highly environment-friendly nature, allows:

- a minimum technological impact of the operated pipeline on the environment;
- minimizing the risk of emergency situations because of the possible effect on pipelines of the environment disturbed by construction.

Such packaged activities were arranged during the construction of Zapolyarnoye-Urengoy, Yamal - Europe, Tyumen Region's North Area-Torzhok main pipelines, a number of connector pipelines in 2005. All the experience acquired by Yamalgazinvest will be taken into account at the North-European pipeline's facilities.

All the subsidiaries paid the prescribed environmental charges in full and in due time.

An important role in implementing all the above environmental protection activities and ensuring compliance with the legislative requirements was played by the industrial environmental control and environmental monitoring systems (IEC and EM) used by all the subsidiaries of Gazprom.



Different forms and methods of environmental control activities, aimed at a higher efficiency of environmental protection are implemented in accordance with the Company's objectives.

Main principles of the industrial environmental control system (IEC) in Lentransgaz are its continuity and the end-to-end nature supported by the assessment of potential and actual environmental impact of the production facilities at all phases of a facility's life cycle: from issuing the design assignment to decommissioning.

All the documents developed by the Company are subject, before submitting for the State environmental appraisal, to environmental appraisal by the Company's environmental protection office. More than 150 appraisals of design documents were made in 2005 within the framework of IEC.

In 2005, Nadymgazprom environmental protection service carried out 13 environmental protection inspections in branches, and 42 recommendations for rectification of the violations revealed were given to heads of the branches, based on such inspections' results. Implementation of such recommendations resulted in:

- construction of grounds for temporary storage of wastes by all enterprises of branches in accordance with relevant guidelines;
- carrying out activities aimed at improvement of waste water treatment quality;
- sanitary treatment of littered areas.

The analysis of control measuring and checks by Permtransgaz allowed not only an identification of the facts of insufficiently treated waste water discharge by two branches of the Company, but also a revelation of insufficient efficiency of treatment facilities. Measures for achievement of water treatment efficiency under passports were taken based on the inspection results.

In 2005, Burgaz commissions carried out a scheduled target inspection of occupational and industrial safety, and ecology at each of 5 branches of the Company.

The Commissions' work results were reflected in reports, recommendations regarding the level and operational quality of the services responsible for industrial, sanitary and environmental safety. Burgaz commissions carried out 887 suchlike inspections in 2005. The Company introduced a monthly control of performance of the recommendations and rectification of faults and irregularities revealed.

The number of items under control and volume of activities, specific character of work, IEC and EM expenses are determined by the scale and specific character of production activities, the Company's organizational structure, regional environmental peculiarities and other factors.

Orenburggazprom own laboratories made in 2005:

- 342 analyses of industrial emissions to the atmospheric air, all the analyses' results demonstrated that no contaminants emissions rates are exceeded;
- 179 thousand element identifications in waste water, surface/subsurface water samples.



2532 air samples, 868 soil samples and 359 water samples were taken and analyzed at Kubangazprom branches facilities.

81 measurements of hazardous substance emissions were taken by Yugtransgaz at 75 GPA (Gas Pumping Units) of Yugtransgaz in 2005, including measurements during integrated testing: three times in the mode of decommissioning for repair, 12 times during acceptance after repair, and three times in the mode of acceptance after modernization. The atmospheric air instrumental quality control was established at 11 units of Yugtransgaz. 100 samples were taken and processed at each of 184 monitoring points during the year.

Instrumental measuring and laboratory studies were supplemented by monitoring with the help of fixed automated stations and mobile environmental laboratories.

Pilot operation of a fixed automated system for control of hazardous substances emissions to the atmosphere (HSEA) started at GPA-52 of Pelym LPU of Tyumentransgaz, allowing evaluation of HSEA operating opportunities at the units of such design, enhancement of frequency of emissions measurements and assessment of the environmental parameters of the GPA's operations at various environmental temperatures and loads. A program for installation of HSEA system at units of various types was elaborated for efficient evaluation of dependence between contaminants emissions and process parameters of GPA operation.

Orenburggazprom commissioned 3 automated fixed stations in 2005 for control of atmospheric contamination in the populated areas located within the Company facilities' possible effect area.

Mobile environmental laboratories were commissioned by Volgotransgaz, Tyumentransgaz and Uraltransgaz.

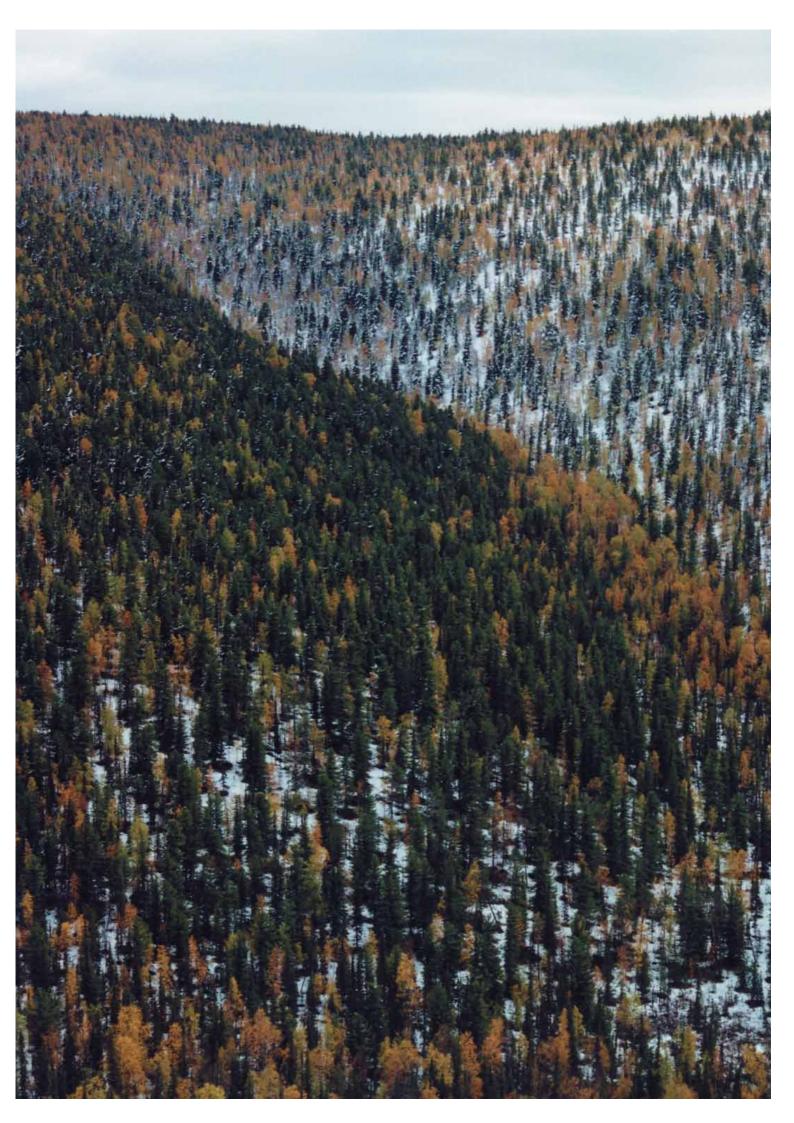
A great deal of analytical instruments for environmental monitoring have been acquired and are used by Urengoygazprom, Permtransgaz, Noyabrskgazdobycha, Severgazprom, Surgutgazprom, Volgotransgaz, Tomsktransgaz.

The most considerable investments in the industrial environmental control and environmental monitoring systems in 2005 were made by:

- among gas producers Nadymgazprom (130 million rubles);
- among integrated cycle companies Orenburggazprom (117 million rubles) and Kubangazprom (16.8 million rubles);
- among gas transportation companies Uraltransgaz (3.9 million rubles), Tomsktransgaz (3.0 million rubles), Samaratransgaz (2.8 million rubles), Volgotransgaz (1.6 million rubles).

Gazprom is engaged in large-scale activities to ensure industrial and environmental safety of the operational complex: blow-out safety at gas-producing facilities and gas safety at all the Company's facilities, modernization of long-term operation facilities, diagnosis of process equipment and pipelines, preventive repair and other activities.

Fire safety of the facilities is one of the key elements of ensuring industrial and environmental safety of Gazprom operational complex. In 2005, Gazprom took measures for further improvement of protection of the fire/explosion hazardous facilities, employment of up-to-date automatic fire extinguishing and alarm systems under the coordination of Gazobezopasnost. 300 automated fire extinguishing systems and over 1000 fire alarm systems were installed and commissioned at Gazprom facilities.





Occupational safety is one of the key commitments of Gazprom Environmental Policy. A number of measures aimed at application of occupational safety standards, and ensuring required hygiene conditions at job sites are taken at the Company's enterprises.

In accordance with the General Concept of Gazprom in the field of occupational and industrial safety which stipulated the priority nature of these activities, the Company proceeded with further improvement of operational safety, preventing operational injuries and morbidity in 2005. The occupational safety services acted in accordance with the Unified Occupational and Industrial Safety Management System of Gazprom (UO&ISMS).

Based on Gazprom UO&ISMS and in accordance with the Regulation on Operational Control of Compliance with Industrial Safety Requirements at Hazardous Production facilities of Gazprom, the subsidiaries developed and approved their respective Regulations on Operational Control... and established permanent commissions for occupational and industrial safety.

The occupational safety qualification of job places at gas-producing and gas transportation organizations of Gazprom was carried out in 2005. According to the year's results, occupational safety conditions were improved for 14 thousand persons.

Gazprom organizations started in the accounting year the certification of the occupational safety activities. The safety certificates were issued to 14 organizations. Among the first organizations certified were Kaspiygazprom, Tyumentransgaz, Volgogradtransgaz, Nadymgazprom, Permtransgaz, Uraltransgaz and Urengoygazprom.



The Company now cooperates actively with more than 70 constituent territories of the Russian Federation.

Environment oriented activities are among the key aspects of Gazprom Regional Policy (the concept of which was approved by Resolution of Gazprom Management Board in 2003). It provides for creation of a system of measures aimed at ensuring environmental safety of gas industry facilities and taking a number of measures aimed at reduction of technological impact on the environment and local population; development and implementation of joint environmental protection programs, and also participation in restoration of the traditional habitat of minority indigenous Arctic ethnos in the Arctic regions, sponsor/charitable activities.

## The above tasks include:

- application of environment-friendly technologies; promotion of industrial safety of gas industry and gas supply facilities, compliance with current environmental requirements at the design, construction and operation phases;
- reduction of emissions and discharge of contaminants to the environment during production, processing, subsurface storage, transportation and use of gas; improvement of land restoration methods;
- carrying out, together with the constituent territories of the Russian Federation, environmental monitoring in the gas industry facilities operation areas;
- making of medical and environmental research and risk analysis for adverse technological impact on the environment and the population;
- preservation, together with the constituent territories of the Russian Federation, of ethnic communities and development of traditional forms of labor and cultural activities of indigenous Arctic ethnos residing throughout the areas of intense activities of Gazprom and its subsidiaries;
- cooperation with regional environmental protection authorities for development and implementation of joint environmental protection programs.

The Company is involved in creating and implementing the systems of high quality water supply and environment-friendly water disposal at Gazprom facilities – Clean Water Program for 2003-2007.

Volgogradtransgaz participates in the projects, under the Cooperation Agreement between the Administration of Volgograd region and Gazprom existing since 2002, aimed at ensuring environmental safety and rational nature use in the region.

Gazprom and the Administration of Yamalo-Nenets autonomous district developed an Adjusted Program for compensatory and environmental protection activities aimed at preservation of the ecological systems of Obskaya Bay and Tazovskaya Bay for 2004-2008. The volume of work performed by Gazflot under the Program cost 54.2 million rubles in 2005.

Agreements for environmental protection and industrial safety were entered into between Nadymgazprom and the Administrations of Yamalsky and Purovsky districts. Both Agreements provide for an early coordination of potentially hazardous activities with possible environmental or other impacts affecting residents of the areas.

## **GAZPROM AND REGIONS**



Orenburggazprom and the Natural Resources Committee of Orenburg region entered into an Agreement on joint activities aimed at ensuring environmental safety and environmental protection in the zone of influence of Orenburg gas chemical complex. The planned activities will result in a reduction of sulfur dioxide emissions to the atmosphere by 6000 ton/year. The Agreement also stipulates application of operating wastes reuse processes. The Agreement also has a provision on the completion of construction of an automated operational environment monitoring system. Under the Agreement, the operational environment monitoring system is supplied with equipment to the amount of 4.3 million rubles.

The commitments of Gazprom Regional Policy include medical and environmental research and analysis of unfavorable effects of the production activities on the environment and human health. Therefore in 2005, Orenburggazprom completed a research named "Assessment of the level of oncological morbidity of the population residing within the Orenburg gas chemical complex effect area, and justification of priority environmental protection activities". The research results demonstrated that production activities of Orenburggazprom did not promote the spread of oncological morbidity among the population residing within the Orenburg gas chemical complex effect area.

The analysis of dependence between the level of clinical and laboratory indicators and hydrogen sulfide/sulfur dioxide concentration made as a part of research work "Assessment of possible impact of sulfur compounds on the population residing within the Orenburg gas chemical complex effect area using biomarker analysis" demonstrated that these compounds were not contributing to the negative dynamics of human health within the areas adjacent to the gas chemical complex.

Gazprom subsidiaries take an active part in regional environmental programs.

Bashtransgaz is a participant of the Republican Target Program "Ecology and natural resources of the Republic of Bashkortostan (2004-2010)".

Astrakhangazprom renders help in implementation of the "Regional environmental hygiene plan of Astrakhan region for 2003–2005".

An Agreement was signed in early 2005 between Yamburggazdobycha and Nadym district office of "Yamal - Potomkam!" Association defining aspects of the region's cooperation with Yamburggazdobycha in environmental protection, and also preservation of the traditional habitat of indigenous Arctic ethnos.



A key line in cooperation between Gazprom and regions of the Russian Federation are the activities aimed at the conversion of motor transport to gas fuel.

Motor vehicles are among the most important contaminators of the environment. Russia's motor fleet annually discharges over 12 million ton of hazardous substances with exhaust gases, or 45 % of overall industrial emissions to the atmosphere, and up to 90 % in major cities. Therefore, a reduction of emissions from motor vehicles is an urgent task.

Use of gas as motor fuel increases significantly the environment-friendly nature of motor vehicles, particularly urgent in the conditions of application in the Russian Federation since 2006 of a new motor fuel quality standard – Euro-2.

Russia's energy strategy stipulates that gas-based fuel should substitute for up to 5 million tons by 2010 and up to 10-12 million tons of petroleum products each year by 2020.

In order to expand the experience of use of natural gas as motor fuel, Gazprom has developed concept "On the activities of Gazprom at the gas-based motor fuel market of the Russian Federation".

## The concept shall be implemented in three phases:

Phase 1 – 2003-2005 - providing profitability of existing gas-fueling stations through an increase of motor vehicles fleet using natural gas to 65-70 thousand cars;

Phase 2 – 2006 - 2010 – bringing the number of gas-fuel vehicles to 190-210 thousand cars by means of development of stationary and mobile natural gas fueling facilities network in Russia and CIS:

Phase 3 – 2011-2020 – increasing the gas-fuel vehicles fleet to 1 million cars, and increasing the number of gas-fueling stations to 1 thousand or more.

The performance of quantitative and temporal parameters of the Concept will allow saving between 1.5 and 1.7 million tons of oil-based motor fuels each year by 2015. This amount may reach the level of 2.1-2.3 million tons by 2020, and annual atmospheric emissions of contaminants containing waste gases will be decreased by 1 - 1.2 million tons during this period.

By focusing on the environmental protection and resource saving, Gazprom considers it very important to convert its own motor vehicles to natural gas and promote promising technologies and equipment contributing to a wider use of compressed natural gas (CNG) as motor fuel in the Russian market. Converting motor vehicles, river, rail and air transport to natural gas is under way.



A majority of the Company's subsidiaries were successful in increasing the volume of natural gas use as motor fuel in 2005. Among others, Kavkaztransgaz, Mostransgaz, Uraltransgaz, Samaratransgaz, Bashtransgaz exceeded the level of 2004 by more than 45 %.

Gazprom, administration of Ryazan region and Russia's Ministry of Agriculture started a pilot project for converting agricultural equipment to natural gas.

Tattransgaz, VNIIGAZ and the Ministry of Transport and Road Facilities of the Republic of Tatarstan entered, at the end of 2005, into an agreement on drafting the Program for conversion of motor vehicles to natural gas as motor fuel.

The work for conversion of motor vehicles to gas fuel was carried on in Moscow, Tula, Tver, Smolensk and other Russia's regions in 2005.

Gazprom subsidiaries are also active in regions' social life, providing sponsor and charitable assistance for social development of regions.

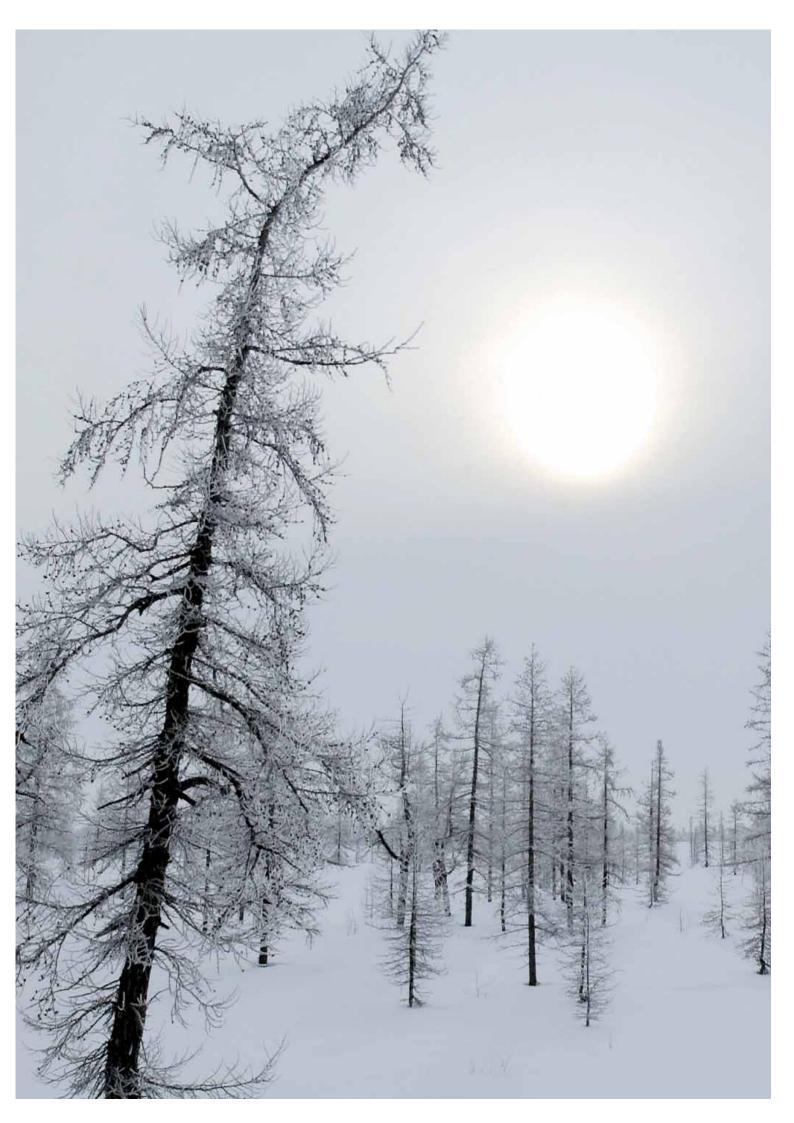
GAZPROM RESOURCE AND ENERGY
SAVING ACTIVITIES

Resource/energy saving is among the key elements of the Company's environmental protection activities. Reduction in consumption of fuel and energy resources (FER) and natural gas losses in various technological processes allows saving important hydrocarbons, reduction of the negative environmental effect and saving considerable financial resources.

The Company is involved, under Gazprom Energy Saving Concept for 2001-2010, in the activities aimed at saving fuel and energy resources.

The Concept formulates basic principles of management of the energy saving process, determines its principal directions and proposes important promising energy saving projects. In order to ensure implementation of the Concept, Gazprom Energy Saving Program for 2002-2003 and Gazprom Energy Saving Program for 2004-2006 were adopted consecutively. Under the Concept, the potential of natural gas savings until 2010 was assessed to be 13.5-14 billion cu.m/year, and electric energy savings – about 3 billion kWh/year.

Real FER savings during 2002-2003 were equal to: about 4.9 billion cu.m for natural gas, 700 million kWh for electric energy, 308 thousand Gcal for heat energy.





For information of saving fuel and energy resources in 2004-2005 see the following Table.

PRINCIPAL INDICATORS

OF RESOURCE / ENERGY SAVING BY

GAZPROM IN 2004-2005

(BY SEGMENTS)

	Natural gas, million cu.m	Electric energy, million kWh	Heat energy, thousand Gcal
Major transport of gas	5 709,1	795,2	426,6
particularly 2005	2 720,5	385,1	260,1
Gas production	964,2	142,2	116,7
particularly 2005	490,1	44,1	60,7
Gas processing	73,1	110,7	58,4
particularly 2005	41,5	103,9	38,8
Subsurface storage of gas	35,7	6,6	3,4
particularly 2005	10,5	3,8	0,2
Well drilling and overhaul	0,0	19,0	28,6
particularly 2005	0	9,5	14,5
Total	6 782,2	1 073,7	633,7
particularly in 2005	3 262,6	546,4	374,3

The plan assignments for energy saving in 2005 are exceeded by the following segments: major pipeline transport  $-3.8\,\%$ , subsurface storage of gas  $-47\,\%$ , well drilling and overhaul  $-2.4\,\%$ . The organizational and technical measures applied in 2005 in the basic and auxiliary operations yielded a FER saving effect of 2876.9 million rubles.

94.1 % of energy savings in 2005 was achieved due to natural gas (as in 2004), while electric energy gave 4.5 %, heat energy 1.3 %, diesel fuel and boiler and furnace fuels -0.07 % and 0.03 %, respectively.

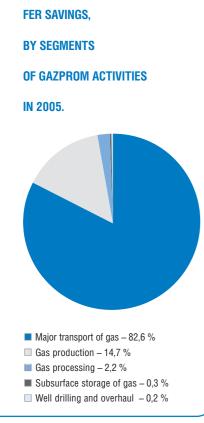
According to the results of 2005, Gazprom subsidiaries saved in the Gas Production segment: 490.1 million cu.m of natural gas, 44.1 million kWh of electric energy, 60.7 thousand Gcal of heat energy. The energy saving was achieved due to the following activities:

- use of technical solutions aimed at reduction of gas consumption for process needs:
- modernization of gas pumping units at booster compression stations;
- optimizing operations of process facilities;
- improvement of control and accounting of gas consumption;
- modernization of process equipment.

Overall saving of fuel and energy resources in the Gas Processing segment was as follows: natural gas - 41.5 million cu.m; electric energy - 103.9 million kWh; heat energy - 38.8 thousand Gcal.

The energy saving effect was achieved due to the following activities:

- a higher heat recovery in process flows;
- a higher efficiency of gas-fuel heat units;
- application of novel energy-saving processes.





Saving of fuel and energy resources in the Gas Transportation segment amounted to: 2720.5 million cu.m of natural gas; 385.1 million kWh of electric energy and 260.1 thousand Gcal of heat energy.

The energy-saving effect in major pipeline transport was achieved due to the following measures taken during basic and auxiliary operations:

- systematic optimization of major pipeline transport regimes;
- modernization of compressor stations, linear pipeline portions and gas-distributing sta-tions;
- reduction of gas losses at compressor stations, linear pipeline portions and gasdistribution stations:
- application of automated management/remote control systems;
- improvement of technical condition of gas-pumping units by means of repairing;
- reduction of gas consumption by compressor and gas-distribution stations;
- application of pipeline pressure tie-in process without bleeding gas to the atmosphere;
- reduction of process losses of gas due to elimination of leakage in valving;
- use of pipeline pipes with internal smooth coating;
- gas saving during repairs at pipeline sections through exhaustion of surplus pressure by consumers to a minimum permissible level;
- repair of faulty pipeline sections based on the results of in-line fault detection without gas bleeding;
- replacement of motors, replacement of detachable gas channels of gas-pumping units

As regards Subsurface Storage of Gas segment, a reduction of the buffer storage capacity of underground gas storage reservoirs and in-situ gas losses resulted in the following savings: natural gas -10.5 million cu.m; electric energy -3.8 million kWh; heat energy -0.2 thousand Gcal.

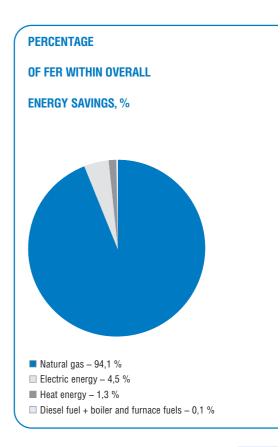
In accordance with the capital construction plan, modernization of transportation and underground storage facilities was performed in 2005. The carried out projects are focused on higher gas supply reliability, industrial and environmental safety of gas transportation. The units and auxiliary equipment of compressor shops were modernized. Repairs and replacement of faulty pipeline sections were done along the linear portion. 86 unit automation systems and 10 shop automation systems were renovated, 3000 km of main pipelines and branch pipelines were equipped with remote control systems.

## These measures allowed:

- a reduction of carbon oxides emissions, due to lower energy consumption, by 331.0 thousand ton/year;
- a 1.3 thousand ton/year reduction of nitrogen oxides emissions.

Along with practical organizational and technological measures to reduce FER consumption in 2005, Gazprom improved the regulatory base for energy saving.

Gazprom Energy Saving Program for 2007-2010 continues to be developed for further implementation of the Energy Saving Concept.





RESEARCH,

**DESIGN, PRODUCTION** 

The innovative way of Gazprom development is a must for successfully carrying out the tasks now faced by Gazprom in the field of environmental protection and resource/energy saving.

The research and development activities, as well as the application of their results in design documents and operations are oriented at carrying out one task - higher environmental efficiency of Gazprom operations, those of its subsidiaries and organizations.

Gazprom organization includes research institutes and centers whose activities are aimed at solving urgent environmental problems of the gas industry.

Research was pursued in 2005 in accordance with the "List of Scientific and Technical Priorities of Gazprom for 2002-2006", aimed at development of novel technologies, technical and organizational measures, guidelines and methodological documents to increase efficiency of environmental protection activities, their implementation was under way.

Development of a number of new guidelines and methodological documents was among the key lines of activities.

VNIIGAZ developed Gazprom standards in 2005 for various aspects of environmental protection activities:

- Recommendations on the scope and procedures of development, coordination and approval of environmental protection materials as part of the design documents at the phase of flow diagram, technical design, investment and construction (modernization);
- Recommendations on collection, processing, use and disposal of balance commercial hydrocarbons and their wastes during preparation of tank cars for repairing;
- List of emissions rates for hazardous substances of gas turbine Gas Pumping Units:
- Instruction on control measurements of hazardous emissions for gas turbine units at compressor stations.

The documents are designed for ensuring a unified policy of subsidiaries in respect of rationing, accounting and control of environmental effect sources, development of maximum allowable atmospheric emissions rates and solving other environmental tasks.



## SevKavNIPIgaz has developed:

- "Recommendations on removal of hydrogen sulfide from gas during development
  of sulfide fields by the plume survey". The developed process of hydrogen sulfide
  removal from gas demonstrates a low power input and metal consumption, allows
  prevention of toxic sulfides emissions during development and surveying of wells
  by the plume, when operating low-yield wells, and obtaining commercial products
  from recovered hydrogen sulfide.
- "Recommendations on operational environmental monitoring of land resources at natural gas transportation and production facilities of Gazprom". A monitoring scheme was developed. Principal requirements and operating phases are determined for the use of surface and remote monitoring methods. Land restoration control issues were elaborated for production facilities.

The industry's "emissions calculation and rationing guidelines for gas-distribution stations, gas filling stations and automated gas filling compressor stations" previously developed by Promgaz were approved in 2005.

## The following documents were issued in 2005

- Gazprom standard "Management structure. Authorities and responsibilities in environmental protection management system" prepared by VNIIGAZ;
- Two radiation safety standards of Gazprom prepared by E&ACGI.

The work aimed at a reducing the environmental impact of Gazprom production facilities was underway.

Based on the research carried out by VNIIGAZ, practical methods and computer software were developed for design of exhaust silencers. Apart from this technical solutions were developed for ensuring proper reduction of noise generated by compressor stations' equipment.

TyumenNllgiprogaz performed a number of development works for waste water treatment.

One of the urgent environmental problems is treatment of waste water generated during scheduled washing and hydraulic testing of pipelines and process equipment. The composition of waste water also includes, along with excessive iron, manganese, silicon, suspended substances, emulsified petroleum products, sulfides, complex compounds of metals with humic acids, ammonium compounds, products of vital functions of iron-depositing and green sulfur bacteria, and also such hard-to-remove compounds as methanol and high alcohols. TyumenNllgiprogaz conducted a research on electric coagulate purification of waste water at gas production and transportation facilities in 2005, a flow chart was developed and basic technical solutions proposed to determine the procedures of gathering, purification, and disposal, the list and basic characteristics of equipment for electric coagulate purification of bilge water.

A unique, in Russia and abroad, technology was developed for electric coagulate purification of washings from filters of iron removal stations, containing up to 80-150 mg/L of hard-to-deposit iron compounds, to the quality level prescribed by SanPiN 2.1.4.1074-01 "Potable water".



The process for comprehensive electric coagulate treatment of potable water introduced by TyumenNIIgiprogaz allows purification of high-colored surface water and silica-containing subsurface water with removal of iron, manganese, silicon, petroleum products, phosphates and organic contaminants within a single process implemented at Vodopad comprehensive electric coagulate water treatment stations having a capacity between 5 and 4000 m<sup>3</sup>/day.

In order to ensure the environment-friendly nature of the Company's facilities, a wide range of problems relating to environmental protection and efficient use of natural resources was studied systematically:

- VNIIGAZ prepared "Environmental strategy for development of gas industry" section within the "Master scheme of development of gas industry for the period until 2030":
- TyumenNllgiprogaz made, as part of research effort "Environmental justification of projects for development, pilot operation and investment projects of Gazprom oil/gas condensate fields in West Siberia", a preliminary environment impact assessment (EIA) with a view of further development of Khancheyskoye, Severo-Urengoyskoye, Vostochno-Tarkosalinskoye, Medvezhye oil/gas condensate fields;
- VNIPIgazdobycha studied the environmental protection problems during development of Bovanenkovskoye gas condensate field;
- Giprospetsgaz developed environmental protection solutions for North-European pipeline;
- Promgaz developed EIA and EA for gas supply projects for a number of regions of the Russian Federation, including districts of Voronezh, Vladimir, Kostroma, Perm, Tver, Tomsk regions, Komi Republic and other areas.

A considerable attention was paid to informational and analytical support of the work.

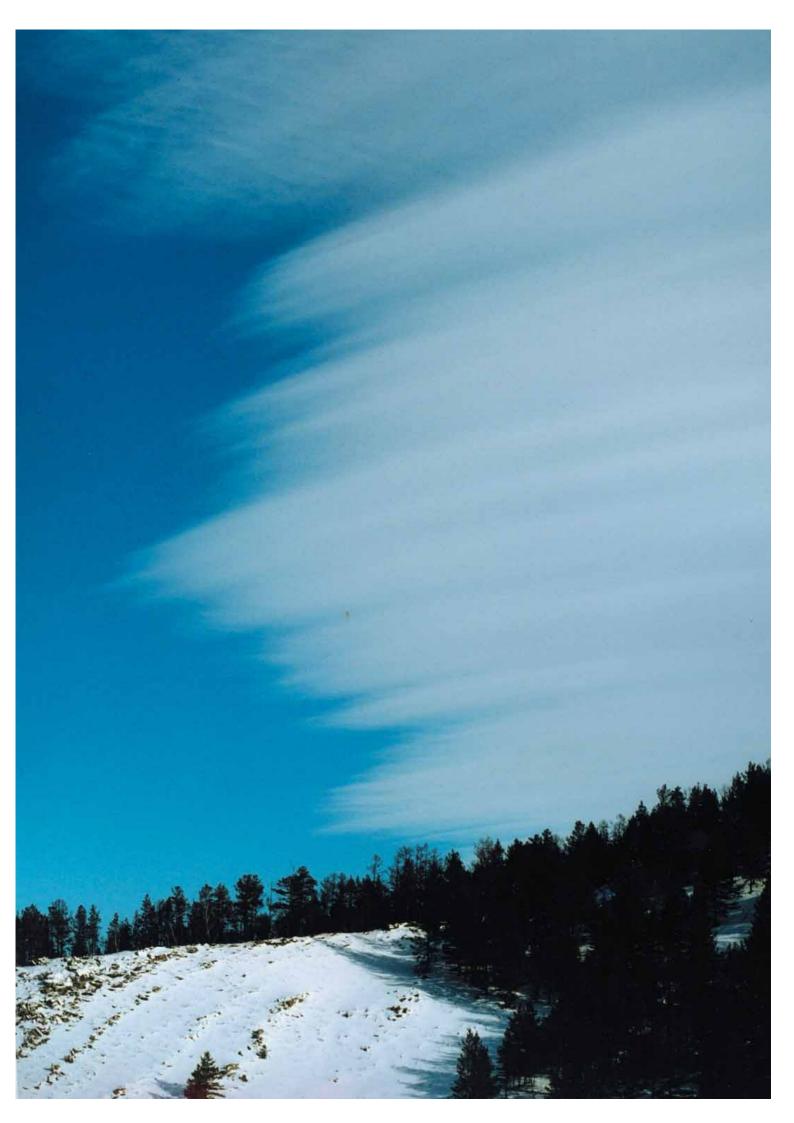
In the reporting year Ecological & Analytical Center of Gas Industries (E&ACGI) was engaged in building modules and units of Gazprom environmental information and analytical system (IAS Ecogas). The development is focused on the ranking and integration of existing, and also formation of new corporate environmental information resources, enhancement of the efficiency of their use before creation of the whole system.

An electronic environmental information bank was developed and implemented in 2005, consisting of the following factographic databases system:

- Environmental situation in regions of the Russian Federation;
- Environmental impact of Gazprom subsidiaries and organizations;
- Environmental aspects of Gazprom subsidiaries' and organizations' activities.

Informational and analytical work was done to cover the key aspects of the Company's environmental protection activities.

Proposals and recommendations were prepared: on planning environmental protection work and improvement of environmental protection activities in Gazprom subsidiaries for application at the Company's facilities of new processes and equipment, which are used successfully in different sectors, enhancement of efficiency of environmental expenses and accuracy of long-term planning of environmental charges in the conditions of expected increase in emissions (discharge) of contaminants and increase in the rates of charges for adverse environmental impact in the near future, use of environmental responsibilities ranking method for the purposes of the corporate assessment of the environmental protection activities carried out by Gazprom subsidiaries and organizations.





Some studies were done by Gazprom subsidiaries to reduce environmental impact from the Company's production facilities.

In 2005, Astrakhangazprom completed development of an integrated process and design documents for process equipment with a view to utilize oversaline deposits and saline horizon drilling wastes at Astrakhan gas condensate field (AGKM). The novel process is providing for a separate gathering and processing of drilling wastes from over saline, saline and sub saline deposits of AGKM with obtaining reusable products.

TyumenNllgiprogaz developed in 2005, under Krasnoyarskgazdobycha assignment, the "Environmental protection activities program for development of Sobinskoye oil/gas condensate field" in order to reduce the adverse environmental impact.

In the accounting year Nadymgazprom arranged hydrological and hydrochemical monitoring at Bovanenkovskoye gas condensate field (BGKM), Yamal Peninsula, to obtain information required for development of technical solutions on regulation of the extremely high water consumption in order to protect and ensure environmentally-safe operation of engineering facilities located in Seyakha and Mordiyakha rivers' flood plains.

Orenburggazprom carried out the "Assessment of levels of natural and technological contamination of soil within the area affected by the activities of main gas condensate pipelines and product pipelines" in 2005.

Permtransgaz made the "Assessment of impact of pipelines' line part on the atmosphere in the route area".

In 2005, SevetNIPIgaz, a branch of VNIIGAZ, monitored condition of land and subsurface water at industrial sites of Severgazprom Sosnogorsk GPZ (SGPZ). The work helped to identify the nature and extent of contamination and the nature of disturbance, and also the possibility of contaminants' migration from industrial sites of SGPZ to the environment. A plan was developed for the activities aimed at rehabilitation of contaminated land; work was done for further development of Severgazprom operational and environmental monitoring system by application in the program of the environmental mapping unit based on the Earth remote sensing materials using digital maps and logging technologies.

Urengoygazprom carried out research "Development and testing of a novel process for integrated waste water treatment to remove nitrogen and phosphorus compounds to achieve MAC (fishery) for environmental control in Novy Urengoy city".



Scientific support of all types of Gazprom activities is a key part of the Company's strategy. Gazprom research and design organizations, and also the leading enterprises and organizations of related sectors, institutions of the Russian Academy of Science, higher educational institutions are involved in fulfilling the industry's task.

An agreement was signed between Gazprom and the Russian Academy of Science (RAN) in 2005, providing for cooperation in fulfilling a number of tasks for efficient use of natural resources and energy/resource saving:

- development, based on the RAN research work, of novel high-capacity equipment and high-efficient, energy/resource saving, environment-friendly technologies;
- efficient operation of the existing, including depleted, fields, enhancement of their hydrocarbons producing capacity;
- efficient development and operation of oil fields;
- efficient development of small fields and non-traditional hydrocarbon resources;
- oensuring longevity, reliability, efficiency and environmental safety of Gazprom production facilities, first of all, gas production systems and unified gas supply system:
- ensuring industrial and environmental safety, rational nature use at Gazprom production facilities.

In order to coordinate the parties' activities for implementation of the Agreement, a Coordination Board for the Russian Academy of Science research work assigned by Gazprom was established, whose members are the Company's and RAN specialists, on a parity basis.

Gazprom is involved in active cooperation for several years with gas companies from a number of countries (Germany, Italy, Norway, etc.) in different fields of operational activities, including environmental protection. This cooperation is mutually advantageous, allowing a more efficient use of partners' experience, technologies and technical equipment.

Among permanent partners of Gazprom are German E.ON Ruhrgas AG and BASF/Wintershall AG.

Within the framework of the 2005 agreement on scientific and technical cooperation between Gazprom and German E.ON Ruhrgas AG, joint handling of a wide range of problems is expected, among which an important role is played by the activities aimed at observation of the principles of reasonable environmental management, ensuring safety of the personnel, reduction of the industrial and environmental risk level

The Agreement is providing, among other things, for:

- development of joint approach to ensuring longevity, reliability, efficiency and environmental safety of the Unified Gas Supply System;
- development of tools for enhancement of environmental and industrial safety of production facilities.

The Agreement entered in 2005 between Gazprom and one more German company, BASF/Wintershall AG, also provides for cooperation in the field of environmental protection and energy saving.

**EXPECTED SCIENTIFIC** 

AND TECHNOLOGICAL

**COOPERATION WITH RUSSIAN** 

**AND FOREIGN ORGANIZATIONS** 

IN SOLVING ENVIRONMENTAL

**PROTECTION TASKS** 



## **ENVIRONMENTAL INFORMATION**

Gazprom consistently pursues the policy of corporate informational openness and strives for efficient and full presentation of information of its environmental protection activities to general public.

For over 10 years, under decision of the Company's management, the Environmental Report of the corporation has been published on a regular basis. "Environmental protection and energy saving" section is always included into Gazprom Annual Report, information of the Company's environmental activities is available at the official web site (www.gazprom.ru), web sites of subsidiaries, and widely represented in various corporate publications, and the sector's mass media.

A traditional attention to disclosure of environmental information is paid by Gazprom subsidiaries.

Astrakhangazprom practices summing up annual results of the environmental service's activities with invitation of representatives of regional authorities, environmental protection bodies, prosecutor office, Rospotrebnadzor, the mass media, public organizations to extended sessions. The activities are discussed in detail in the mass media. Astrakhangazprom issues Annual Reports on environmental protection since 2003.

Information of the environmental aspects of the enterprise's activities most important for the population are discussed systematically in the mass media: Astrakhangazprom TV channel "7+" and radio broadcasting program "Avtoradio" daily broadcast information of the environmental situation in the Astrakhan Gas Complex (AGK) area. "Puls Aksaraiska" and "Za Astrakhansky gaz" newspapers publish, on a weekly basis, environmental information of the complex and quality of the atmospheric air at the populated areas located in the vicinity of AGK. For several years already, TV channel "7+" broadcasts popular program "Man and Nature".

In 2005, newspaper "Komsomolskaya Pravda. Volgograd" published an article named "Volgogradtransgaz: Care of the Future" on the environmental protection activities of Volgogradtransgaz.

In 2005, Volgotransgaz regularly published articles on the environmental aspects of its business in the corporate information newsletter "Magistral".

Kavkaztransgaz submits annual environmental protection reports to the executive authorities of Stavropol Territory and the territorial authorities of the Russian Federation Rostekhnadzor. Kavkaztransgaz corporate newspaper published in August 2005 the materials of the Company's environmental protection activities and its environmental service. Video films were shot about two environmental projects: "Ensuring Environmental Safety of Severo-Stavropolskoye Subsurface Gas Storage Facility" and "Operational Environmental Monitoring System for Russia-Turkey Pipeline" for demonstration to environmental specialists and general public.

Kubangazprom environmental protection activities were repeatedly discussed in 2005 in the printed and electronic mass media. The environmental service contributed in publication of articles in "Krasnodarskiye Izvestiya" and "Kubanskiye Novosti" newspapers, and also on web sites http://www.yuga.ru, http://www.regions.ru, http://www.regnum.ru.

Lentransgaz publishes information of its environmental protection activities at the "Ecology" page of the corporate web site. The actual problem of passportization of operational wastes is discussed in an article published in the February issue of "Neftegazovaya Vertikal" magazine.



Environmental aspects of Mostransgaz activities are also discussed at the Company's official web site. Press tours to the Company's production facilities are arranged for reporters on a regular basis.

Environmental protection activities of Nadymgazprom were discussed in 2005 on a regular basis in "Gazovik" corporate newspaper and regional publications "Krasny Sever" and "Rabochy Nadyma".

Orenburggazprom has been publishing annual Environmental Protection Reports for a few years. A considerable attention is paid to environmental issues by the sector's newspaper "Za Orenburgsky Gaz" with a 5000 copy circulation. In 2005, the newspaper published 34 articles about ecological issues.

The Company's specialists issue regular press releases for the mass media.

The materials of the Company's environmental protection activities are published on a regular basis in regional mass media: "Yuzhny Ural", "Orenburgskoye Vremya", "Orenburzhye", "Selskiye Vesti", "Argumenty i Fakty v Orenburzhiye", "Trud-7 v Orenburzhiye", "Orenburgsky Kray"; on TV channels "GTRK-Orenburg", "Region", "Oren-TV", "Planeta", "Avtoradio" and "Russkoye Radio-2". Specialized magazines "Gazovaya Promyshlennost" (Gazprom) and "Ekologiya Proizvodstva" (Ministry of Natural Resources) published a number of articles in 2005 about industrial and environmental safety at the Company's facilities.

In 2005, Permtransgaz corporate newspaper "Gaz-Express" regularly published information of the activities aimed at preventing emergency situations and reduction of contaminants emission — in-line diagnosis, installation of remote control, gas-compressor units modernization. Some regional and all-Russia newspapers, such as "Kommersant", "Rossiyaskaya Gazeta", published articles on the Company's success in reduction of atmospheric emission of contaminants.

Severgazprom traditionally issues annual reports on its environmental protection activities: the eighth annual Environmental Protection Report was published in 2005. The report is submitted to the environmental protection authorities and public organizations.

Articles on the environmental aspects of Surgutgazprom activities were regularly published in "Sibirsky Gazovik" corporate newspaper in 2005.

Tyumentransgaz took part in the accounting year in the 3rd International Environmental Event "Spasti i Sokhranit". A visit to the environmental monitoring center and Komsomolskoye LPU (Production Division) was arranged in Yugorsk in order to inform the participants of the Company's environmental protection activities.

Information of Urengoygazprom environmental protection activities was published in 2005 in "Gazovaya Promyshlennost" journal, "Gaz Urengoya" corporate newspaper. Urengoygazprom TV station's programs were about environmental aspects of the Company's business. A number of electronic presentations of the scientific and technical achievements of Urengoygazprom were prepared, including those on environmental problems.



In March 2005 "Komsomolskaya Pravda" newspaper published "Environmental Program is Underway" about environmental aspects of Yugtransgaz business. The Company's achievements in the field of environmental protection were presented to general public during exhibition "Environmental protection activities of enterprises, organizations and institutions of Saratov aimed at a reduction of adverse impact on the environment in 2001-2005" arranged by the Administration of Saratov city.

Yamburggazdobycha published its Environmental Protection Report as a separate publication in 2005..

During the whole year, information of the environmental protection activities was regularly published in the press, TV and radio broadcasting and web publications: "Pravda Severa", "Krasny Sever", "Sovetskoye Zapolyarye", "Tyumenskiye Izvestiya", OGTRK "Region – Tyumen"; OGTRK "Yamal Region"; TRIA "Novy Urengoy – Impuls"; RRTRK "Novy Urengoy", TRK "Sigma"; sites of IA Interfax; IA "Sever-Press"; ADVIS.ru, RusEnergy.com, REGNUM, Regions.ru.

The most detailed information of the environmental aspects of Yamburggazdobycha activities is published at Yamburggazdobycha site (http://www.yagd.ru/ecology.shtml).

## **COMPETITIONS, EXHIBITIONS**

Environmental protection activities of Gazprom and its subsidiaries are traditionally welcomed by Russian public and environmental organizations.

Gazprom became leader in 2005 in the ranking "Environmental responsibilities of Russia's major industrial enterprises", leaving behind, by the sum of indicators, RAO UESR, Norilsk Nickel, Lukoil, Rosneft and many others. The rating was done for the first time by Interregional Public Organization Independent Social Environmental Protection Initiative (MOO NESPI) and Interfax News Agency. The system of the rating criteria took into account such indicators as observation of environmental legislation, arrangement of environmental protection services, exercising industrial environmental control, availability of an environmental protection management system and some other characteristics. The Company's environmental responsibility was assessed based on the analysis of environmental protection arrangements of five subsidiaries of the Company: Nadymgazprom, Surgutgazprom, Urengoygazprom, Severgazprom and Astrakhangazprom. Nadymgazprom is among 15 Russian enterprises rated as a high-level environmental responsibility enterprise.

The gold medal of the 5th Moscow International Innovations and Investments Salon was awarded to "Operational environmental monitoring system for Russia-Turkey (Blue Stream) pipeline" project presented by Kavkaztransgaz.

Based on the results of the International Specialized Exhibition "Fire Safety in the 21st Century", Gazobezopasnost was awarded diploma and gold medal.

Vodopad electric coagulate potable water treatment station (TyumenNllgiprogaz) was awarded gold medal and 1st rank diploma in 2005 at the international exhibition fair INTEKHVOD (Kemerovo) as a product of the highest demand among customers.

The work of some subsidiaries represented to all-Russia and regional competitions were awarded diplomas and prizes.

Ecological & Analytical Center of Gas Industries was awarded diploma at the "National Environmental Prize" competition in 2005 for development of "Establishment of a system to ensure environmental safety" project.



In 2005, the operational environmental monitoring system of Astrakhangazprom, as a component of the enterprise's IEC system was awarded the top prize of "The best environmental project of an enterprise" competition in "Arrangement of industrial environmental control "nomination arranged by the Federal Process, Environmental and Nuclear Supervision Service (Rostekhnadzor) and "Otrasleviye Vedomosti" Publishing House. Within the competition, project of the environmental protection service of Kavkaztransgaz "Assessment of environment impact of Severo-Stavropolskoye underground storage facility and environmental monitoring system design" was awarded diploma at the competition for a great contribution in development and application of environmental protection projects.

For the success achieved, based on the results of the 5th All-Russia competition "Russian organization for high efficiency" arranged by the Russian Federation Ministry of Health and Social Development and the Russian Federation Ministry of Economic Development and Trade, Yamburggazdobycha was awarded the 2nd prize. Samaratransgaz was awarded the 3rd prize in nomination "Labor conditions and occupational safety". Tyumentransgaz was awarded honorary title "Russian organization of a high social efficiency, 2005".

The third prize was awarded to work "Application of aerial visual survey for effective assessment of condition and mapping of ecological systems" presented by Nadymgazprom at the scientific and technical conference for young researchers and specialists of Gazprom "Innovation potential of young specialists of Gazprom — contribution in development of Kuban gas industry" (Sochi).



## **OUR ECOLOGISTS**

A number of people are employed by Gazprom, its subsidiaries and organizations who devoted decades of their lives to the environmental protection.

Orenburggazprom maintains a multi-profile gas chemical complex. The Company's ecologists have to fulfill a number of tasks every hour to ensure environmental safety of facilities. One of the specialists making a great contribution in this work is Konstantin Ivanovich Lysikov who has been engaged in environmental protection activities with Orenburggazprom for almost a quarter of the century, since May 1982, when he was appointed deputy chief engineer of Orenburg gas processing plant (GPZ) in charge of ecological matters.

During the years of his work at the enterprise, K.I. Lysikov was an active supporter of introducing environmental services at the gas processing plant and Orenburggazprom as a whole, establishing of environmental protection procedures. He was responsible for the development and application of environmental safety measures at sulfur production plants and for the establishment and modernization of environmental monitoring system. He took part in the development of an oil sludge dispose plant.

Konstantin Ivanovich was repeatedly awarded certificates of honor issued by Orenburggazprom and the administration of Orenburg city; he was awarded title "Honorable Worker of Gas Industry", he is Labor Veteran of Gazprom.

Nadymgazprom has been carrying out environmental protection activities for almost thirty years. The beginning was in 1978, when environmental protection sector was established under CNIIPR Nadymgazprom to cope with the task of reducing environmental impact of gas-producing facilities. The unit was transformed into an independent office in 1993.

The environmental protection management system of Nadymgazprom is now among the best ones in the Company. It is made up of the environmental protection service, environmental monitoring service, operational chemical and analytical support service. All the units are integrated within the Department of Environmental Services of the Technical Control and Ecological Monitoring Division. And ecologists employed by 17 branches of Nadymgazprom are also responsible for environmental protection.

The environmental protection service of Department of Environmental Services of the Technical Control and Ecological Monitoring Division is responsible for arrangement and coordination of environmental protection activities in the Company and its branches.

The service is headed by Nina Andreevna Dekman who has been dealing with environmental issues for about thirty years.

A lot of work in the field of protection of atmospheric air, calculation of charges for environmental contamination for the Company's branches is done by deputy head of the service E.M. Ivanyuk who has been employed by the service since 1994.

E.E. Vasilchenko, leading engineer of the service, has been working in the field of environmental protection for 20 years. Her responsibilities include execution and obtaining permissive documents on water management, development of plans and reports on environmental protection activities.

Branches of Nadymgazprom employ people of a considerable working record and experience in the environmental protection activities. One of the most experienced



employees of the environmental service is Irina Borisovna Busygina, an ecology engineer of the operating and technical department of Medvezhinskoye gas production directorate. I.B. Busygina who has been graduated from Tyumen Oil and Gas University is employed by the organization since 1993, and takes on a wide range of responsibilities relating to environmental safety at the facilities of Medvezhinskoye gas production directorate.

Yugtransgaz is among 14 subsidiaries of the Company having a considerable part of environmental protection functions (inventory, rationing, industrial environmental control and monitoring) vested in the Engineering Center, a specialized auxiliary branch of the Company. The total number of the Company's employees dealing with environmental protection is 58 persons, of which four are employees of the Central Administration, 21 are employed by the Environmental Protection Laboratory of the Engineering Center, and others are employees of the Company's operational (Gas Mains Production Division, Updating Gas Storage Division) and auxiliary branches.

The level of education of the Company's environmental service personnel is rather high: 49 employees have a higher education degree, including four specialists in analytical chemistry.

One of the most respectful and experienced analysts of the Engineering Center is Olga Alexeevna Ignatova, a leading chemist engineer in the potable, process and waste water analysis group of the environmental protection laboratory of the Engineering Center.

O.A. Ignatova graduated from Saratov State University in chemistry is employed by Yugtransgaz since 1993. During this period, she has mastered and applied 50 methods for analysis of potable, natural and waste water, developed a number of manuals for practical environmental protection activities.

The Company's operational branches also employ experienced ecologists. One of them is Eduard Dekabrievich Bekerov, who has been employed by Mokrousskoye LPU (Production Division) as ecology engineer for almost 13 years. As a high-qualified specialist, he managed to make people observe requirements of environmental protection legislation in his branch. He devotes his attention to review permissive documents on a regular basis and introduced an industrial environmental control. Bekerov E.D. stepped up a set of activities in the branch with a view to reduce toxic waste volumes and optimize their disposal methods. He was awarded a certificate of honor by the management of Yugtransgaz.



**CARE** 

FOR FUTURE GENERATIONS

Due to their scale Gazprom activities are of strategic importance for development of the economy of Russia, they influence the interests of a great number of people and determine the Company's social responsibility to the society. Therefore, Gazprom strives to ensure a sustainable development of its business, and pays much attention both to the economics and to the environmental and social components of its business.

As a result of its environmental protection activities during the last few years, Gazprom managed to achieve an impressive success in its production and business activities, and it continues to reduce steadily their adverse impact on the environment.

A considerable experience in the environmental protection gained by Gazprom will be implemented in its new promising projects, the most important of which include development of the natural gas reserves at the Yamal Peninsula and on the Russian Arctic continental shelf, construction of the North-European gas pipeline, building of the Unified gas production and transportation system in East Siberia and Far East, etc.

Careful protection of the environment, preservation and rational use of the natural resources are required by the Russian legislation and international regulations, what's more - all of them constitute a natural human need dictated by care of the future generations.

Implementing its new strategic goal of becoming a global energy company, Gazprom will always keep to these unwritten principles in all its activities - now and in future.



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