PANORAMA

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ISSUE'S FOCUS

CPC-2021: YEAR OF ANNIVERSARIES AND NEW ACHIEVMENTS

CONTENT

16

29

ЛУЧШЕЕ КОРПОРАТИВНОЕ МЕДИА ГОДА
ЛАУРЕАТ ВСЕРОССИЙСКОГО КОНКУРСА
2020
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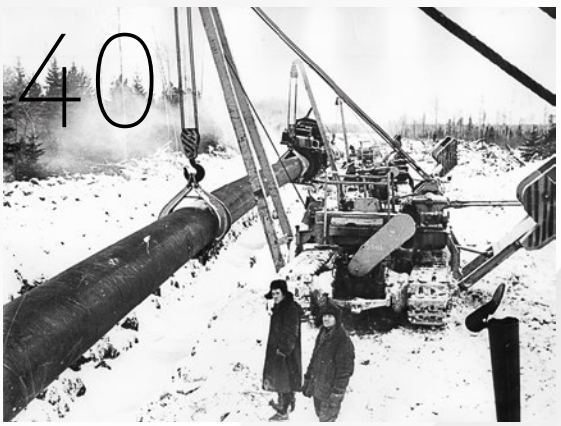

40

CPC-2021: YEAR OF ANNIVERSARIES AND NEW ACHIEVMENTS

DEAR COLLEAGUES, DEAR FRIENDS!

In 2021, the Caspian Pipeline Consortium celebrates the 25th anniversary of the signing of the Shareholders Agreement, within the framework of which CPC-R JSC and CPC-K JSC were formed. This date actually marked the creation of the company in its present form. This year also marks 20 years since the beginning of filling the oil pipeline with oil from the Tengiz field, as well as the date of shipment of the first tanker at the Marine Terminal in Novorossiysk.

These years were very eventful for the company, they were marked by various achievements and records, constant improvement of technologies, selfless and successful work of a multinational workforce along the entire length of the 1511-kilometer pipeline system from Tengiz and Novorossiysk. Life has shown that no time challenges can disrupt the stability and continuity of the Consortium, economic and environmental performance indicators, CPC's social obligations to the regions of presence. And the results of the past difficult year were no exception. In the difficult conditions of the pandemic, the Consortium took a set of organizational and personnel, sanitary and preventive, information technology and other measures that made it possible to ensure the reliable operation of all production facilities and regional offices.

The company is ready to implement new ambitious tasks in the coming year. In 2021, CPC will start a three-year production program and the construction phase of the DBNP. The implementation of the new corporate program "Leaders of Safe Production Culture" will continue, focused on ensuring accident-free and incident-free operation, transfer and dissemination of best practices and skills among CPC personnel and contractors.

There is no doubt that the CPC team can handle all the tasks facing the company. We have another year of intensive work ahead of us, which, I am sure, will bear positive results.

N. N. GORBAN,
GENERAL DIRECTOR,
CASPIAN PIPELINE CONSORTIUM

AUTHOR
PAVEL KRETOV

THE FIRST PROJECT OF THE XXI CENTURY

TWENTY YEARS AGO, MARCH 26, 2001, A SIGNIFICANT EVENT IN CPC HISTORY – THE CONSORTIUM'S PIPELINE FILLING STARTED WITH OIL FROM THE TENGIZ FIELD. AT THE CELEBRATION PRIME MINISTER OF THE REPUBLIC OF KAZAKHSTAN KASYM-ZHOMART TOKAEV AND GENERAL DIRECTOR SERGEY GNACHENKO OPENED THE VALVE OF THE NEW MAIN OIL PIPELINE

"The participation of Russia and Kazakhstan in the CPC project confirms the strategic idea of a balanced use of the energy potential of the Caspian basin," the head of the government, and now the President of Kazakhstan, Kassym-Zhomart Tokayev noted at the ceremony.

Representatives of all CPC shareholders have come to the opening of the pipeline in Atyrau – there were 14 of them at that time. As a sign of respect for the environment, the project participants planted conifers and signed a special message on receiving the first oil. This document was then placed in a sealed capsule, which was attached to a pipe cleaning tool and launched at the head of the hydrocarbon stream. Three months later the message from Atyrau was read at the Marine Terminal near Novorossiysk, where, steadily filling the "steel artery", black gold arrived when about a million tons of oil entered the pipeline.

The ceremonial event in the capital of the Kazakh oil industry took place less than two years after the laying of the "first stone of CPC". Journalists pompously called the pipeline of the international Consortium both "The First Project of the XXI Century" and "Route to the New Century". Construction has become a truly unique school for the exchange of best practices and the most progressive technologies. The main line was built by six thousand workers, who erected site facilities and

laid the linear part in five streams. The progress of construction was closely followed by Vladimir Putin, the Prime Minister of the Russian Federation at that time – on December 2, 1999 he held a meeting with the shareholders of the Consortium. The pace of the pipeline installation is most clearly evidenced by the following fact on June 10, 2000, the second group operating in the Stavropol Territory welded 100 joints. Commenting on the progress of work, Russian Energy Minister Igor Yusufov noted that the country had not known such a speed since the construction of the Bratsk Hydroelectric Power Station in the 60s of the 20th century.

During the construction of the pipeline, 12 crossings were laid over water obstacles, including such large rivers as the Volga and Kuban. Simultaneously with the construction of a new section of the pipeline from the Komsomolskaya PS to Novorossiysk, work was carried out to reactivate, diagnose and modernize facilities from the Tengiz PS to the Komsomolskaya PS. The scope included the installation of quick-detachable gates on the chambers of the cleaning and diagnostic tools, backfilling of the eroded sections of the route, hydrotesting of pipelines and tanks. In Kazakhstan, this work was performed by KazTransOil, in Russia – by Transneft.

Huge operations took place at the facilities of the CPC Marine Terminal. The builders moved 4 million m3 of hard rock. The painting of the first two built RVS-100000 tanks began, and installation work was completed on two more at the end of 2000. A harbor for anchorage of auxiliary vessels was built in the sea, underwater pipelines with a total length of about 15 km were laid and two single-point moorings (SPM) were installed.

THE BUILDERS MOVED

4 MILLION M³
OF HARD ROCK

Along with the construction of the CPC oil pipeline, preparations for the start of operation of the pipeline system and the formation of a team of specialists were made. Great importance was attached to the training of new employees.

The dispatchers consistently completed training in the United States and Oman, where they thoroughly studied the operation of the SCADA telemetry system and tanker loading control.

At the same time, the shareholders settled the last issues of the Oil Quality Bank (OQB), unique for the region. They agreed that the OQB will start working as soon as any other oil, in addition to Tengiz, begins to enter the system. CPC was preparing to record the quantity and quality of oil entering the system at each entry point and create a map of 11 benchmarks for oil grades listed on the London Stock Exchange, according to which project participants could evaluate and account for all incoming oil in mutual settlements.

On November 27, 2001, a new oil transportation route was inaugurated by filling of the first tanker at the Marine Terminal in Yuzhnaya Ozereevka. By the end of 2001, 11 tankers had been shipped in testing mode, CPC shipped over 900 thousand tons of oil to world markets. Now this is history. History, which we are proud of.

AUTHOR
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SCADA EVOLUTION

THE OPERATION OF THE FACILITIES OF THE CASPIAN PIPELINE CONSORTIUM IS MONITORED FROM DISPATCHING CONSOLES AND THE SCADA REVIEW WEB MONITORING SYSTEM NOWADAYS. THIS IS THE SECOND GENERATION OF THE SCADA INFORMATION COMPLEX, AND THE MODERNIZATION CONTINUES

From the very beginning of CPC's operation, the company deployed a SCADA S/3 process monitoring system, at the consoles of which the dispatchers of the OPC and of PS shift supervisors could monitor the parameters of the quantity and quality of oil pumped through the pipeline and located in the tanks. Control was provided by sensors installed on the equipment. In addition to this hardware and software complex, during the first several years of the Consortium's production activities, the SCADA Info information complex was developed by the Pipeline

Applications Group of the Technology Division (currently the Application and Software Development Service) with the direct participation of the Control Systems Group and the Dispatch Service, which made it possible in various reporting forms to reflect the status of pumping, oil and equipment on the corporate Internet portal, outside the dispatch consoles. Such convenient monitoring method was highly appreciated by the company's management. Then requests were received from technologists, commercial analysts, leakage specialists, metrologists, Instrumentation and Automation specialists, power engineers, transport workers, laboratory assistants, turbinists, the Security Service, the Electrochemical Protection Service (EPS) and the other CPC operational units.

Of course, certified paper documents (quality certificate, acceptance certificate and others) are considered official data, but free access (for persons with permitted admission) to the sensors readings installed on the equipment has become very popular. It was possible to view and analyze the operational data of the entire oil pipeline system for any computer connected to the CPC network (with access rights) for every two hours or even in runtime – according to the last changed sensor readings.

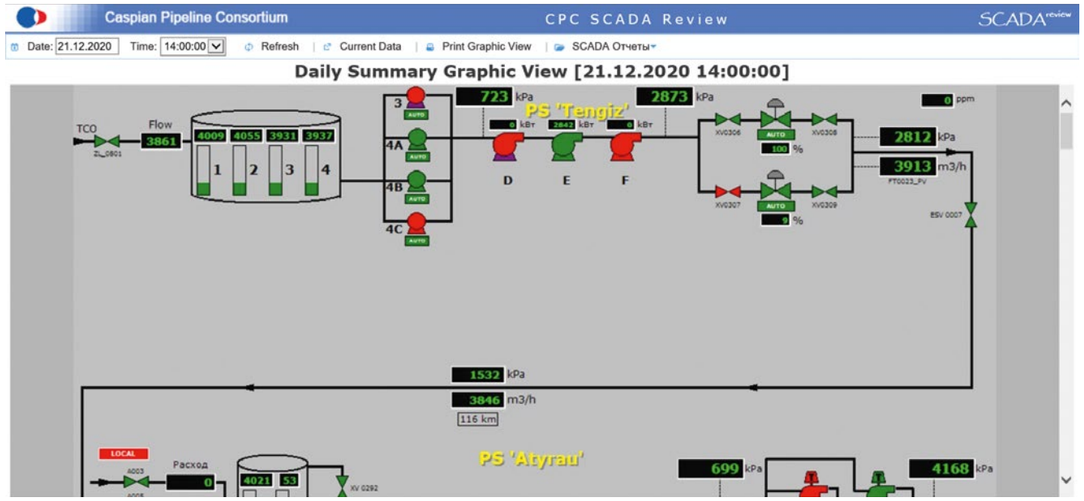
As the SCADA Info complex improved, it began to include reports such as Dispatchers daily report. This basic and most widely used SCADA report was visualized with a high quality graphical report developed by Senior Information Systems Development Specialist Sergey Goncharov. It depicted tanks with levels of poured oil, running and non-running pumps and valve positions (marked in different colors), process and main pipelines with pressure and flow readings.

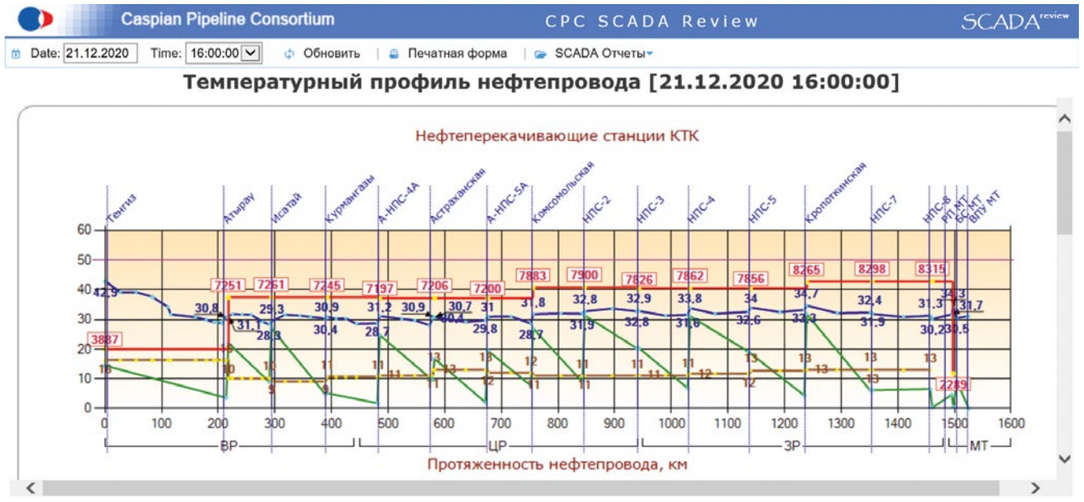
OVER TIME, IT WAS DECIDED TO REPLACE SCADA S/3 WITH A NEW SCADA OASYS SYSTEM

The SCADA Info system also made it possible to display a brief report of the state of the Marine Terminal equipment, a report of leak detection (currently – a report of instrumentation), interval data for leak detection (now – a report of the LDS). In addition, the technological parameters of the PS and the linear part, the readings of electrical equipment by region, the data for the operational balance by region, the operational list of the PS, the report of the chief mechanic on the auxiliary systems of the Marine Terminal were provided.

The complex of "instant" reports included data on EPS at the linear part, PS and the Marine Terminal, data on shelters and radio shelters (including electrical parameters), the state of operation of pumps and SPM equipment. In addition, the climatic parameters (temperature and humidity) in the OPC hall were monitored, and the climate in other rooms could also be monitored, if necessary.

The SCADA Info complex also made it possible to receive reports with diagrams of pressure on the line in meters (for monitoring possible leaks), oil mass received at the Marine Terminal (table and graph





with daily indicators), oil balance for the month (list of daily balances with a graph). In addition, monitoring of the amount of loading time on MT was provided – the time of loading tankers in hours and percentage for each day of month. The average monthly weight and volume of oil in the tanks were monitored, and a weekly report on oil pumping was provided (data on deliveries and shipments by PS and MT).

However, a well-functioning SCADA S/3 complex has become obsolete morally and physically over time. It was decided to replace it with a new SCADA OASyS system. Among other things, the new system made it possible to process the received data and determine the reliability of the sensors.

In accordance with the implemented system, the entire architecture of the SCADA Info software package was revised and improved. There were more than 60 thousand parameters – 20 times more than in the old in the new complex. Due to the new principle of data organization in the system and the accumulated wishes from the users, it was decided to rewrite the entire interface, which led to the creation of a new set of SCADA Review reports. The application team decided to create a lightweight, quickly customizable interface that would show key metrics and monitor non-essential data, which was extremely difficult with a single table with thousands of values.

"Moving" the database and software functionality from the old to the new SCADA version lasted more than a year. There was a lot of both creative and routine work. It was required to find a correspondence to all thousands of parameters between the new and old systems. They did not always coincide in the title, a lot of new parameters appeared. It was required to write several hundred auxiliary scripts that are used to control and analyze data to date for such a painstaking and responsible work.

THE NEW SCADA REVIEW COMPLEX HAS

20

PARAMETERS TIMES MORE,

THAN THE PREVIOUS ONE

There was enough work for everyone. The Pipeline Applications Group worked hard for a year, and finally, in October 2017, the new SCADA Review system was launched. The former SCADA system also worked during the interim period. Orders to collect data on operational parameters (loading rate, pumping capacity, temperature, density and viscosity of oil) for several years are still received, including the period of operation of the "old" SCADA, and this data, of course, is available in the archive database, it can be downloaded according to specially developed requests.

After analyzing the SCADA Info data architecture, it was decided not to oppose two-hour and "instant" reports, but to make them mutually transformable – with one click. It is planned to continue this universalization and make different types of reports (two-hour, with a columnar presentation of parameters, monthly, one-day) convertible into each other. To manage such a significant amount of data, Dmitry Bogomolov (currently the Head of the Application and Software Development Service) has developed a unique tree-table architecture that allows to disable entire groups of parameters from viewing. This way, web reports can be shortened both vertically and horizontally, making it easier to view and find the data you want.

After the transformation of the previously existing reports, it became possible to identify the parameters of other PS and regional branches of the linear part in the new system, which had not previously participated in monitoring SCADA Info. These reports were added and, to simplify the entire system, many of them were combined into one with a set of tabs, and especially long reports were, on the contrary, divided into tabs.

In addition to the transformed old reports, new ones were added: MT Laboratory, report on antifriction additives, Diagnostics of flow meters, Oil consumption, Oil temperature, EPS-statuses on the linear part, a report of shelters for the Security Service.

The summer of 2019 turned out to be hot, so the issue of monitoring the oil temperature all the way from receiving oil from a supplier to shipment to an export tanker arose. On the instructions of the CPC management, it was necessary to develop online diagrams of temperature profiles of the linear part and metering units. The work was new and difficult, but the Group coped with it in a short time. This is how the reports on The temperature profile of an oil pipeline (combined graphs of oil and soil temperatures, pressure and oil consumption in all sections of the LP) and the Temperature profile of LACT (combined graphs of temperature and oil consumption at metering stations) appeared.

The Application and Software Development Service plans to provide SCADA Review users with the ability to automatically receive detailed diagrams for any parameters, especially critical: temperature, viscosity, pressure, density, antifriction additives in the future.

In each version of the web reports – no matter it is SCADA Info or SCADA Review – great importance was attached to the user interface: design, ergonomics and information content of the presented data. In the new version of SCADA Review, the capabilities have increased as the old code was rejected and the programs were re-developed. The focus was on infographics. One color is used to highlight different types of parameters, large groups of parameters are highlighted with a common tone. The colors are not too bright, the background is pastel so as not to tire the eyes. Unrealistic and doubtful values (outside the normal range) are marked with strikethrough, zero values of unused equipment are not displayed, so as not to overload the monitor with unnecessary information. When you hover over a parameter, a tooltip indicating the signal value (average, maximum, at the end of the hour) and the processing function, if this parameter is calculated appears. By the way, the decision about what signal value should be output can also be important. For temperatures, maximum values are usually displayed, as this is one of the key safety parameters. For the indicators for which monthly reports and forecasts are compiled, technologists ask to display average values.

IT WAS DECIDED TO REWRITE THE ENTIRE INTERFACE, WHICH LED TO THE CREATION OF A NEW SET OF SCADA REVIEW REPORTS

The SCADA Review system can also be supplemented with reports in other formats. For example, at the request of leak control and prevention specialists, a semi-annual report on the distribution of the LDS was developed in the form of an Excel file. It should be noted that you can now download any SCADA report to Excel, which was not available in the previous system. It is very convenient for further analysis using Excel tools, including charting.

Our team has many plans for the further development of SCADA Review to make the system even more convenient, informative and ergonomic. Among them is the connection of all SCADA reports to the corporate "Wikipedia" based on SharePoint, where information will be described both for each report and for the most important parameters and calculated values. A system for diagnosing key operational problems (non-working sensors, critical technological indicators, etc.) is also being considered for development with their display on the monitor when opening reports. In addition, it is planned to provide average and maximum indicators for the selected period of time, the choice of the language for providing information and the ability to generate a web report for each user individually – with the selected parameters, grouping, location, type of signals. The modernization of the integrated web monitoring system for CPC facilities continues and contributes to the technological development of the company.

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REVIEWER
B.V. ZABULDIN,
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WORK UNDER RELIABLE PROTECTION

VITALLY IMPORTANT RULES OF LABOR PROTECTION, INDUSTRIAL SAFETY AND ENVIRONMENTAL PROTECTION UNITE THE CASPIAN PIPELINE CONSORTIUM WITH THE GENERAL CONTRACTOR – STARSTROY LLC

SAFETY INSTRUCTIONS ARE GIVEN BY RUSLAN YUFEREV, HEAD OF THE IPATOVO ERC

The STARSTROY company has many years of experience in the construction and maintenance of oil and gas facilities in accordance with the requirements of international safety and quality standards. One of the main customers for the work, currently, is the international Caspian Pipeline Consortium. Over the past five years, the number of employees of STARSTROY LLC has doubled and as of the end of this year is approaching to 1.2 thousand people. There have been no gross violations of the requirements of Industrial Safety, Labor Protection and Safety, since the foundation of our company in 1999, and there have been no accidents with loss of working capacity of personnel and their death in production since 2011. Such indicators became possible due to the fact that our company with a high degree of responsibility relate to the issues of health, safety and environment protection (HSE) in production, to protect the labor interests of employees and ensure their welfare in general. Preserving the life and health of employees is a priority in relation to the results of production activities, the company strives to create safe working conditions, prevent industrial accidents and occupational diseases, eliminate and minimize hazards and risks, and achieve a high level of HSE.

Industrial accidents and occupational diseases are not predetermined by fate and are not inevitable: they always have reasons. The development of an effective prevention culture allows to eliminate them and prevent industrial accidents and damage, as well as occupational diseases. The principle of Vision Zero, or "Zero Injury" is being implemented in international practice nowadays. This is a qualitatively new way of organizing prevention, combining three areas – safety, occupational health and well-being of workers at all levels of production. Developed by the International Social Security Association (ISSA), Vision Zero is flexible and can be tailored to the specific preventive measures prioritized for the safety, health and well-being of workers in a given facility. Due to its flexibility, the Vision Zero principle can be applied anywhere in the workplace and in any enterprise.

The management of STARSTROY LLC decided to implement this concept throughout the company. In February 2020, the Zero Injury Program of STARSTROY was developed and introduced into production. Its seven basic rules allow us to concentrate our work on preventing the prerequisites of injuries and accidents in a single direction.

Leader's behavior is critical to the success or failure of health and safety development at our facility. Each leader, manager, head of the department is responsible for labor protection at the enterprise, in his department. The quality of leadership in this area determines not only the practice in the field of labor protection, but also the managers' own reputation, their success and stability. It requires open communication and a clear management culture. Good leadership is characterized by predictability, consistency and attention to details. Management sets an example for others to follow. It sets the rules and follows them itself. Managers ensure that these rules are understood and followed by all employees of the enterprise. Any violation requires an immediate response! Identification of risk factors should be encouraged. The way managers act themselves, what they agree with and what they insist on, determines the standard of behavior of employees. The entire staff sees that the management

IN FEBRUARY 2020, THE ZERO INJURY PROGRAM OF STARSTROY WAS DEVELOPED AND INTRODUCED INTO PRODUCTION

LABOR PROTECTION STAND IN THE PMT OFFICE

of STARSTROY pays special attention to this area in their activities and tries to "keep up with the bosses".

The company's personnel are informed about the steps taken by the management and the HSE Service in such ways as informing employees about occupational safety issues by posting relevant information in public places, as well as publishing bulletins on occupational safety and health protection of personnel. In addition, meetings of the company's labor collectives are regularly held with the introduction of vital rules, as a result of which the employees took on personal obligations in the field of safety.

By analogy with the Caspian Pipeline Consortium, STARSTROY LLC has developed personal obligations for personnel. By signing this document, employees undertake to comply with the requirements of federal regulations and instructions on labor protection, to carry out the health and safety measures required in the company for all types of work, to determine hazardous factors before starting them and assess possible risks, to carry out work of increased danger in accordance with the received order – admission, report all incidents, accidents and potentially dangerous situations, use personal protective equipment, maintain qualifications by training or receive additional education, use the right to suspend work in the event of a dangerous situation, if necessary.

STARSTROY's HSE Division is implementing all the management's goals and objectives for the implementation of the concept of zero injuries on the project. When it comes to the maintenance project for the facilities of CPC-R JSC, the HSE Division, relying on the customer's documents, its own procedures and regulations in the field of labor protection and industrial safety, focuses on achieving the main goal – ensuring safe and trouble-free work of personnel. This work is carried out jointly with the specialists of the CPC-R HSE Division under the direction of the CPC-R Deputy General Manager of HSE Elena Bulatova.

Leading HSE specialist of the Central Region Alexander Kurnoskin and Occupational Safety Engineer of PLT Tatiana Boreyko proved to be the best professionals of the HSE service of STARSTROY. In accordance with the Regulations on incentives for employees for compliance with labor and road safety requirements, in STARSTROY, labor and production discipline, incentives have been introduced for personnel actively involved in ensuring production safety, training newly hired personnel and promoting compliance with labor protection requirements. 24 employees were awarded with valuable gifts for 2020, here are some of them: I.I. Sergeev, Master of Repair of technological installations MT, A.V. Stulnov, driver-machinist PNU-1M in the Central region, A.N. Kutsenko, truck crane driver and S.A. Dubina, master mechanic in the Western Region.

The participation of STARSTROY specialists in all pilot projects of CPC-R in the field of labor protection and industrial safety indicates that the customer trusts these employees to test their projects as highly qualified professionals who know their business.

STARSTROY specialists took an active part in the demonstration of the adapted INDORA software (electronic work permit, audits) and the actual testing of the system.

Currently, STARSTROY specialists are working on testing OLIMPOX software as a part of the CPC project of improving the process of familiarization with HSE requirements and the usage of automated resources for self-training and preliminary testing. The professional level of employees of contractors will increase due to the implementation of this software.

The management of STARSTROY LLC, by relying on the staff and reputation of the company, in the current environment, when the coronavirus pandemic is making its own adjustments to the company's activities of ensuring safe working conditions for personnel, are taking unprecedented measures to protect personnel from viral infection, confidently making plans for the future. The company's potential and rich production experience gained from unique international projects are the key to its further development. ●

ALEXEY ZUBKOV, MASTER ELECTRICIAN OF THE KROPOTKIN ERC, IS BEING TESTED IN THE OLIMPOX PROGRAM

BY ANALOGY WITH THE CPC, STARSTROY HAS DEVELOPED PERSONAL OBLIGATIONS FOR PERSONNEL

WHY IS IT PROFITABLE TO DEAL WITH LABOR PROTECTION?

AUTHOR
ELENA BULATOVA,
DEPUTY GENERAL MANAGER,
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HELLO, WE'RE LOOKING FOR TALENT!

A NEW CORPORATE PROGRAM "LEADERS IN THE DEVELOPMENT OF A CULTURE OF SAFE PRODUCTION" WAS LAUNCHED IN DECEMBER 2020. ITS PARTICIPANTS (THE PERSONNEL OF THE COMPANY AND CONTRACTORS) WILL BECOME LEADERS IN THE FIELD OF INDUSTRIAL SAFETY IN THEIR DIVISIONS, AND WILL BE ABLE TO TRANSFER KNOWLEDGE AND SKILLS AS MENTORS

We, CPC employees, can rightfully be proud of the results of joint activities aimed at preventing injuries, ill health, incidents and accidents at our company's facilities. Behind the zero injury and accident rates is a huge amount of work done and the feasible contribution of each employee, regardless of the position held and assigned duties, including employees of contractors involved in the implementation of the Debottlenecking Program (DBNP).

We all understand that it is important not only to achieve high health, safety and environmental performance, but also to consolidate the success. To maintain the leading position in the industry, the further development of the Culture of Safe Production, when the person and his actions in the workplace, the decisions that he makes during the execution of the production task, come to the fore.

When it comes to occupational safety, a key role in the work team is played by enthusiasts who are able to organize colleagues, motivating and inspiring them to fulfill the requirements of HSE, with the prevailing goal of preventing injuries and accidents at work. Such people demonstrate a commitment to safety issues and a responsible attitude towards them by their example. They actively participate in all programs of our company and help others in matters of safety. By all of this, they contribute to the formation of a common value in their work collective – safety at work. These people are our Safety Leaders, or as we call them, Leaders in the development of a Culture of Safe Production.

It is not necessary to hold a high position, to be an experienced oil pipeline operator or a builder – every employee who is not indifferent to health, safety and environmental protection issues, who takes an active life position, is ready to learn and help his colleagues make an informed choice in favor of safe work practices, can become a leader.

We plan to start implementing the Leaders in the development of a Culture of Safe Production program in our company at the beginning of 2021. And now we are looking for enthusiasts, who will declare themselves as the security leaders of their department, division, station or office in preparation for the implementation of the program. Together, we will prepare the ground for major Safety Culture Program activities at an early stage. We also invite representatives of CPC permanent contractors to participate.

We will teach you and together with you we will show leadership in daily work activities: show an example of fulfilling all HSE requirements and not passing by dangerous actions and dangerous conditions, reacting and helping to correct them. We will also actively and jointly participate in the Observation Cards program and teach how to become a mentor for this program for colleagues. The next stages of the program are to learn how to hold thematic meetings on HSE and Safety Culture Program with your colleagues, to promote the initiatives of members of work collectives in this direction, to conduct seminars and master classes on the Culture of Safe Production after training and practice and much more.

We will try to create additional motivational preferences for our Leaders in the development of a Culture of Safe Production. These will include posting on the Hall of Fame, publications in corporate media, and more.

If you want to join a team of like-minded people, share our sincere conviction that every incident can be prevented, are ready to learn new things and hone your skills in what you already know, or in what you have questions – please contact the HSE division to Ilya Totsky, Lead Coordinator, Safety Culture Program Implementation, for more information.

TO MAINTAIN A LEADING POSITION IN THE INDUSTRY, IT IS IMPORTANT TO FURTHER DEVELOP A CULTURE OF SAFE PRODUCTION

AUTHOR
AINA ZHETPISBAEVA

COMPETENTLY ABOUT TAXES

FOR THOSE OF US WHO WORK WITH SUPPLIERS, THEY KNOW THAT EVERY CONTRACT INCLUDES A TAX SECTION. CPC-K IS ONE OF THE 300 LARGEST TAXPAYERS IN KAZAKHSTAN, SO ACCORDINGLY, THE DEMAND FROM THE COMPANY FROM THE TAX AUTHORITIES IS HIGH. WE WILL TELL YOU ABOUT THE DETAILS OF THE WORK OF THE TAX GROUP OF THE EASTERN REGION

Coordinator of the tax group of the CPC-K – Chief Tax Specialist Almagul Kemalova. She has been working in the Consortium since June 2006, and has 13 years of experience in the tax service of the Atyrau region. There are four employees under the leadership of Almagul. Lead Tax Specialist Akmaral Aituarova is engaged in the calculation of property tax, corporate income tax at the source of payment from residents and non-residents, that is, taxes withheld from the income of our non-resident shareholders and KazMunayGas, as well as the other non-residents. In addition, Akmaral calculates all other local taxes: vehicle tax, land tax, environmental tax, land use tax.

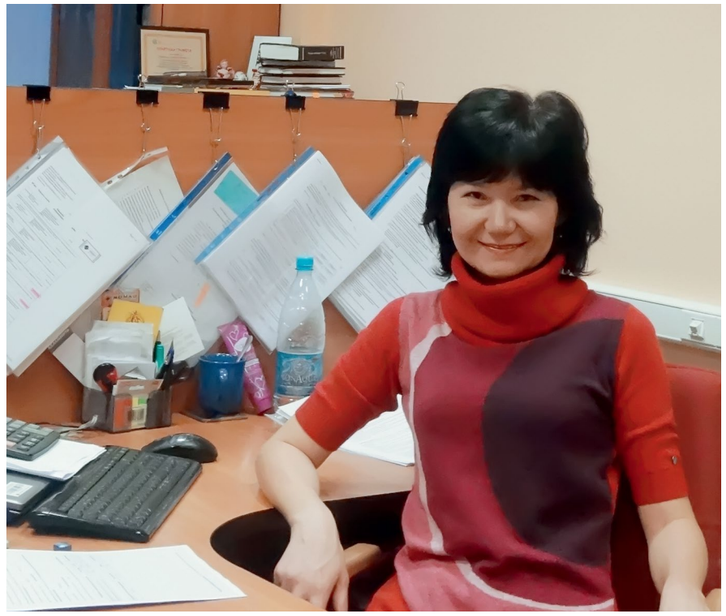
Senior Tax Specialist Zhanar Kalmukhanova is engaged in the calculation of value added tax (VAT) in the Customs Union, from residents and third countries, the formation of a purchase and a sales book. Her colleague, Senior Tax Specialist Zhanar Aitbaeva, keeps records of corporate income tax (CIT). As part of the implementation of the Debottlenecking Program (DBNP), the Tax Group of CPC-K was supplemented by Tax Specialist Bagdagul Zakariyeva. Her profile is VAT – a tax that requires a large volume of paperwork.

HONESTY OF PARTNERS AS A GUARANTEE OF VAT REFUND

In accordance with the norms of the Tax Code of the Republic of Kazakhstan, the turnover for the sale of international transportation services is taxed at a zero rate. As an international oil transportation company CPC-K has the right to receive VAT refunds from the budget. But returning this money is a laborious process that requires iron nerves, time and effort.

"VAT that CPC-K pays to its suppliers with the cost of their goods, works and services, the company has the right to demand from the budget," says Almagul Kemalova. "And when a demand for such a refund is filed, the tax authorities appoint quarterly audits, during which the suppliers also carry out a "counter" audit. If the suppliers' taxes are reflected correctly and consistent with our documents, then VAT is refunded. But, unfortunately, there are also unscrupulous suppliers who can submit reports with zero indicators to the tax authorities. Therefore, it is very important for the company to work with conscientious partners."

ZHANAR KALMUKHANOVA,
SENIOR TAX SPECIALIST



AKMARAL AYTUAROVA,
LEAD TAX SPECIALIST

ALMAGUL KEMALOVA,
CHIEF TAX SPECIALIST

THE NUANCES OF CHARITY

The Shareholders Agreement specifies that the Consortium may provide charitable sponsorship assistance. At the same time, the Tax Code for this type of expenses provides the right to reduce taxable income (TI) within 3%.

What is taxable income? This is the difference between the gross annual income and the confirmed expenses in connection with the implementation of activities aimed at generating income. But to reduce the TI by the amount of sponsorship, there are certain requirements of the Tax Code: assistance must be provided to non-profit organizations to implement their statutory goals.

THE LARGER THE ORGANIZATION, THE HIGHER THE REQUIREMENTS

The Consortium in Kazakhstan pays about 15 types of taxes. These are corporate income tax (CIT, levied at the source of payment on the income of residents and non-residents), value added tax (VAT, VAT on imports, VAT in the Customs Union, VAT for non-residents), vehicle tax, land tax, property tax, land use fees, fees for the use of radio frequency spectrum, environmental tax, social tax, individual income tax, health insurance deductions, social insurance deductions.

THE CONSORTIUM IN KAZAKHSTAN PAYS ABOUT 15 TYPES OF TAXES

A list of 300 large taxpayers subject to tax monitoring was approved by the Resolution of the Government of the Republic of Kazakhstan. This list also includes the Consortium. The Code of Administrative Offenses provides for administrative liability for violation of tax legislation for small, medium and large businesses. In this case, the fines for the company are the highest, as for a large business entity.

"The Department of Finance is always full of work," says Almagul Kemalova. "Our Tax team starts the working day with everyone and ends late in the evening. The quarantine period has made its own adjustments, but even in remote mode, work does not stop for a minute."

AUTHOR
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PUT OUT IN 40 MINUTES

ON OCTOBER 29, IN THE REPUBLIC OF KAZAKHSTAN AT THE ATYRAU OIL PUMPING STATION, TACTICAL FIRE-FIGHTING EXERCISES WERE HELD TO EXTINGUISH A SIMULATED FIRE IN THE TANK FARM

Tactical firefighting exercises "Fire extinguishing in the tank farm of the Atyrau PS" were organized as part of the 2020 Program for conducting drills, exercises and drills to eliminate accidents, oil spills, fires and other emergencies at the facilities of the Caspian Pipeline Consortium. The exercises were attended by combat crews of volunteer firefighting units of the Atyrau PS, fire departments of FJSC "Ort sandirushi", the State Institution "Firefighting and Rescue Service of the Department of Emergency Situations of the Atyrau Region", fire departments of "KFD". 75 people and 14 units of fire, special and auxiliary equipment were involved in the exercises in total.

According to the legend of the exercises, the floating roof in the RVSPK-20000 tank was destroyed, it was immersed in oil, an explosion of a vapor-air mixture and oil ignited on the entire surface of the tank mirror. Having received a signal to the mnemonic panel for the fire and gas alarm and confirmation of the fire from the operational personnel Instrumentation and Automation, the shift supervisor of the Atyrau PS turned on the general alarm siren, alerted by phone and radio communication about the fire according to the notification scheme of the Department of Emergency Situations of Atyrau region, West Region management, controlled the automatic shutdown of the pump station. Employees of the security unit of BAS LP evacuated 61 personnel of the station and contractors who were not involved in the elimination of emergency situations through the northern, central and southern gates of the PS.

After receiving a signal about the fire, two fire trucks drove up to the conditionally ignited tank and started to cool the walls with water from the northern and southern sides. The promptly formed fire extinguishing headquarters under the leadership of the Deputy Head of the PS gave the command to de-energize the tank farm, provide portable radios for the KFD and ESD arriving crews, supply an additional amount of foam concentrate to ensure uninterrupted supply of fire extinguishing agents to extinguish a simulated tank fire.

The combined forces of the fire brigades of the PS and the arriving reinforcements formed three combat areas: for cooling the walls of a conditionally burning tank and block valves, for cooling the walls of a neighboring oil tank, protecting personnel, equipment and extinguishing a conditional fire in an oil tank. Within 20 minutes after the signal of a fire, a specialized fire extinguishing technique was deployed around the tank and the command was given to start a foam attack. Then, for 10 minutes, foam was supplied to the burning oil tank through the Purga-80 foam shaft installed on the PP-50 foam lifter. After that, the localization of combustion was recorded and the command to continue the foam attack until it completely stops was given. After 10 minutes, the simulated fire was extinguished.

The extinguishing of a simulated fire in the tank farm of the Atyrau PS until complete elimination lasted for 40 minutes after its "appearance». Based on the results of the exercises, the leadership of the ESD of the Atyrau region and the CPC-K conducted a debriefing of actions and gave an "excellent" mark. There were no comments from the representatives of the ESD of Atyrau region and the CPC-K management. Mukhit Mazhenov, Regional Manager of the CPC-K summed up the results of the exercise and thanked the participants of the vocational school for their successful conduct, he noted the readiness of medical services to provide first aid, high discipline of the personnel and security services of the facility, interaction and coordination of actions between the participants of the exercises.

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HABIT SAFETY

HOW TO TEACH A DRIVER TO DRIVE A CAR SAFELY NOT ONLY AT WORK, BUT ALSO AT FREE TIME? THE ANSWER TO THIS QUESTION IS EXACTLY KNOWN AT CPC TRANSPORTATION GROUP

SUPERVISED FROM SPACE

Vehicle on-board monitoring systems (OMS) are not unique technologies available to a limited number of companies for a long time. Already in 2009, the corporate Standards in the field of safe operation of vehicles approved by the Consortium recommended the use of OMS.

OMS is an intelligent multifunctional control and navigation complex that allows real-time monitoring of the location of the vehicle using the built-in GPS/GLONASS satellite navigation system and automated control over the use of the vehicle using programmed actions for specified events.

The first experience of using such DriveRight systems manufactured by the American company Davis Instruments Corporation was controversial. However, this equipment did not have a GPS/GLONASS module yet, it only read the parameters of the vehicle movement, accumulated them on the data carrier. Every week it was necessary to remove this carrier and connect it to the dispatcher's computer to process the information. Installation and further exploitation caused certain difficulties due to the weak level of service support in the regions. Despite the inconvenience of use, the traffic safety indicators at CPC have significantly improved.

In 2012, the first 25 vehicles of the CPC Moscow office were already equipped with more modern Israeli-made Track-Tec on-board systems.

"It was an interesting experience, which was sorely lacking neither for us, nor even for the representatives of the Israeli company in Moscow at that moment," said Oleg Burmistrov, Senior Transport Specialist. "So, when the first car was connected to the OMS, it turned out that for the system, the car does not move around Moscow, but, 'not realizing' the roads and ravines, rushes across the steppes of Texas."

The developer himself took a break to find out the reasons, and while foreign specialists were looking for an error, CPC employees found it earlier: in the settings, the latitude and longitude values were mixed up.

DOCUMENTATION, STORAGE AND PROCESSING

In the fall of 2012, CPC's transport specialists traveled to the other end of Russia to exchange experience at the invitation of Sakhalin Energy Ltd. Due to the harsh natural and climatic conditions, the use of OMS was an absolute vital necessity in this company: cars often drive off in a blizzard, with poor visibility, at extremely low temperatures, so it is very important to constantly monitor the transport and know every minute that everything is all right with the driver and the car.

Based on the results of a trip to colleagues in the Far East, the Regulation on the use of the on-board monitoring system on CPC vehicles was developed within six months. According to the normative document, the main functions were considered to be the real time determination of the location, speed and direction of the vehicle on the map of the area using geographic information systems. OMS was also responsible for generating reports, including the usage of archived statistical information on the use of a car or a group of cars (mileage, events, etc.) and documenting all events in the database, storing and processing accumulated statistical information about the operation of the vehicle fleet.

IN 2012, THE FIRST 25 VEHICLES OF THE CPC MOSCOW OFFICE WERE ALREADY EQUIPPED WITH MORE MODERN ISRAELI-MADE TRACK-TEC ON-BOARD SYSTEMS

IN RUSSIAN REALITIES

The implementation of OMS continued for all CPC equipment in 2013. However, after a few years, CPC specialists came to the conclusion that the Consortium needs systems that are better adapted to Russian realities. For all their indisputable merits, Israeli OMSs quickly discharged car batteries and showed false coordinates in places of weak or jammed satellite signals. So, in 2016, CPC began to switch to the Russian SCOUT vehicle monitoring system. In addition to its own vehicles, CPC has also connected the fleet of its contractors. For example, in 2017, cars of STARSTROY LLC were equipped with this system, in 2018 — KazTransOil JSC, in 2019 — Southern Transport Enterprise LLC. About 500 vehicles that are involved in the Caspian Pipeline Consortium project have been connected to the OMS nowadays. The annual cumulative mileage of this vehicle fleet is about 26 million km, more than 2.5 million km of which are directly accounted for by the Consortium's vehicles.

"The market offers a wide range of OMS nowadays, but only few of them can be classified as truly

'advanced '," explains Oleg Burmistrov. "These systems must be equipped with a three-axis accelerometer and gyroscope. By using such equipment, the system can accurately distinguish a driver's sloppy driving style from driving in difficult off-road conditions, driving over holes or speed bumps for example."

A lot of painstaking work was done by specialists of the Moscow office and heads of regional transport services in order for OMS SCOUT to always provide the most reliable information about the driver's behavior while driving. They personally accompanied drivers when moving along highways, dunes, off-road, checked the reaction of the sensors and made changes to the remote settings, if necessary.

OMS controls not so much the car as each specific driver, who has an individual key. Moreover, the system not only records the parameters of the trip, but also warns the driver that the set parameters are exceeded with a sound signal. Exceeding the established maximum speed limit, violating speed limits established by traffic rules in specific sections of the route, sudden acceleration or braking, entering turns at high speed, fraught with skidding during such maneuvers, sharp braking, etc are among such parameters.

All cases of driving with violation of the specified parameters are recorded as events and converted into the format of the corresponding reports, which are then analyzed by employees of transport departments.

PROMOTION POLICY

The system ranks drivers by their behavior into three categories, each with its own color code: red, yellow and green. Drivers with indicators of 100%-90% are in the best – green zone. Their colleagues, who scored 89.99%-70%, fall into the middle yellow group. Result 69.99%-0% is red.

"In our work with the driver's staff, we believe that improving the level of safety should be stimulated, first of all, by a consistent policy of persuasion in the priority of safety, rewards for good results, and not punishment for bad ones," notes Oleg Burmistrov.

For example, if the driver had good indicators, but they began to deteriorate, additional instructions are given with him, control trips with filling in the developed checklist is made. If the driver had medium indicators, but began to seriously improve them, then such work on himself is always welcomed and encouraged.

"As a result of the analysis of driving style and instructing with drivers, it was possible to ensure that almost all employees are stable in the green zone and only a few from time to time find themselves in the yellow zone," emphasizes Oleg Burmistrov.

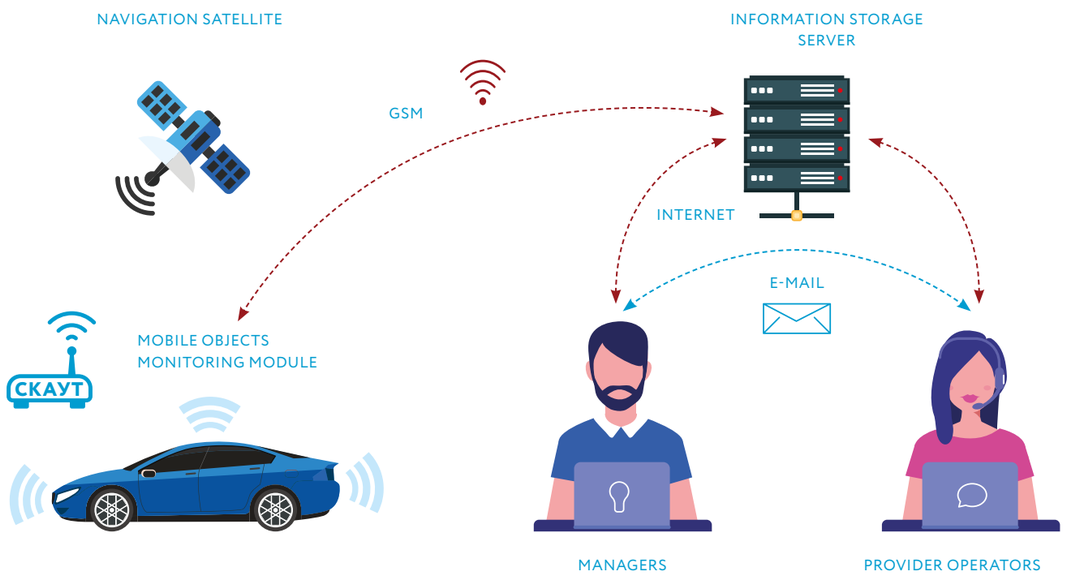
In 2018, CPC held an audit of shareholders, following which the results of the implementation of on-board monitoring systems, and especially the method of instructing drivers, were highly appreciated. Driving style control technologies not only have a positive effect on safety and accident rates, but also, save fuel and vehicle resources due to a smooth driving style.

Progress does not stand still, OMS develops along with it. CPC's transport specialists constantly monitor the latest developments in the field of modern equipment and software, the new level of their quality and functionality. For a more stable connection with the server, GSM blocks with sim cards of several operators are installed today, and in areas where cellular operators do not provide stable coverage, controllers that can work through data transmission using Wi-Fi access points are used. Onboard monitoring systems combined with external and internal video recorders are also interesting novelties. The driver lit a cigarette or raised the phone to his ear – in the form of photographs, these facts of violation of job descriptions will be documented in the database.

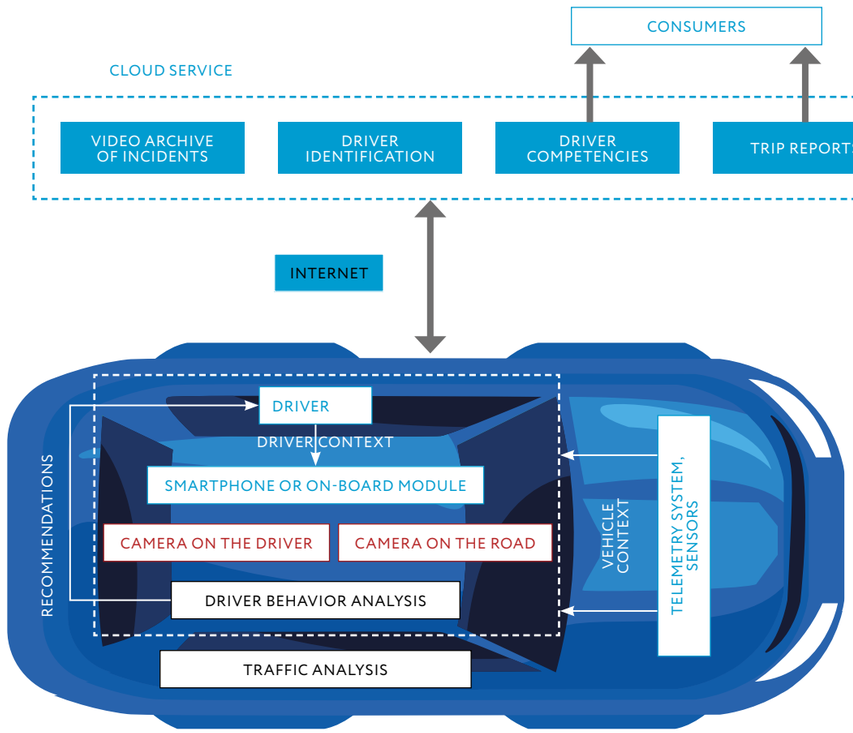
"I often communicate with drivers on business trips. They also speak positively about the results of the implementation of the monitoring system. OMS helps to sort out errors affecting traffic safety, guarantees compliance with the work and rest regime. Our employees even note that they habitually adhere to exactly the same driving style in private cars outside of working hours as on business trips," Oleg Burmistrov sums up.

HOW IT WORKS

Cars are equipped with GLONASS/GPS –terminals with audio feedback device for the driver. Company employees have access to the system via the Internet and / or receive reports of violations from external operators.



PERSPECTIVE SOLUTION "VIDEO ANALYTICS IN THE CAB OF THE VEHICLE"



VIDEO ANALYTICS IN THE VEHICLE CAB ALLOWS YOU TO INSTANTLY DETECT AND ALERT THE DRIVER ABOUT EVENTS:

- FALLING ASLEEP
- FATIGUE
- DISTRACTION
- USING THE PHONE
- UNFASTENED SEAT BELT, ETC.

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SYSTEM AND INTEGRATED APPROACH

THE OPERATION OF CPC SECURITY STRUCTURES AND ITS RESULTS ARE REGULARLY COVERED ON THE PAGES OF THE CORPORATE MAGAZINE. RECENTLY THE SECURITY SERVICE OF THE CONSORTIUM HAS BEEN TRANSFORMED INTO THE CORPORATE SECURITY DIVISION, IN THIS CONNECTION, PANORAMA CPC OFFERS YOU AN INTERVIEW WITH ILYA BORISENKO, THE HEAD OF THE NEW BOARD STRUCTURE

Ilya Vasilyevich, could you please share what caused the transformation of the Security Service into the CPC Corporate Security Division?

The world itself is changing, society is changing, technologies are developing, new threats appear. We are talking in the last days of 2020, which has already gone down in history because of the pandemic that caused the closure of borders between countries, restrictions on movement, the economic crisis and, as a result, a drop in living standards and an increase in crime. All these factors, of course, affect the level of security in the world and pose new challenges for our service.

The CPC Security Service was reorganized in 2020, as a result, seven job positions were reduced, but the functionality and tasks of the entire structure were increased at the same time. Also, the mechanism of interaction and control within each substructural group is strengthened.

The layman is often wary of the phrase "security service", presenting gloomy people in uniform and with weapons...

This is a representation from a bad movie. In fact, the Corporate Security Division provides comprehensive protection for the company. First of all, we are talking, of course, about physical protection. This is a system of organizational and technical measures and measures aimed at preventing unauthorized and unregulated actions that can lead to terrorism, theft, create a threat to security, directly or indirectly lead to various harmful consequences. The main physical protection functions are warning, detection, delay/arrest and response by security forces. These functions are performed both in sequence and in parallel with each other, enhancing the synergistic effect of safety.

"THE CPC SECURITY SERVICE WAS REORGANIZED IN 2020, AS A RESULT, THE FUNCTIONALITY AND TASKS OF THE ENTIRE STRUCTURE WERE INCREASED"

Prevention of unauthorized access to facilities, as well as monitoring compliance with the rules of conduct on their territory is carried out by organizational measures to ensure internal and checkpoint regimes (CPR). In CPC, such functionality is performed by the Regime and Internal Security Service, and its actions are regulated by the Regulations on the CPR and on-site mode. These documents apply to all employees of the Consortium, as well as to guests and visitors of the company, without exception.

Apart from the site facilities, CPC has an extended linear part. How is protection and safety provided there?

The prevention and detection of threats on the linear part of the main oil pipeline of the company is provided by the forces of a security contractor under the leadership of the Security Service. To prevent criminal encroachments, prevent oil theft and other unauthorized interference in the pipeline's activities, a single contract was organized to ensure physical protection of the linear part and stationary facilities of the CPC main oil pipeline. Choosing one contractor for all objects and linear part on the territory of Russia, we were based on the principles of the unity of approaches to ensuring protection, the continuity of the security process, the use of advanced technologies and progressive experience.

It is impossible not to note such an important component of the physical protection system as engineering and technical security equipment (ETSE) when speaking about technical progress. This is a complex of devices, systems and means used for the purpose of automatic detection and warning against unauthorized actions, control, as well as the creation of additional fixation barriers. The ETSE system includes security alarms, a set of mechanical barriers and warning fences, access control and management systems, CCTV, security lighting and power supply, and much more. These systems increase the effectiveness

of the security forces, support them, for example, in poor visibility, in difficult weather conditions, minimize human errors, and, in addition, record and store various types of information. Today, in the context of the development of technology and computer technology, the ETSE system also actively uses software products that allow you to analyze large amounts of data in the shortest possible time, automatically detect errors and violations. The management and development of the ETSE system in our department is handled by the Service of Engineering and Technical Security Means.

These three services are part of the Physical Security Division, complementing each other and functioning as one. The team of the Division consists exclusively of high-level professionals, which makes it possible to efficiently use the available resources to achieve maximum effect. Thus, over the past few years, thanks to well-coordinated teamwork, the number of acts of unlawful interference at CPC facilities has reached a minimum level. And in the most difficult year of 2020, not a single tie-in to the pipeline took place. We are proud of this result because we know that other companies are not doing so well.

> "EVEN THOUGH CPC IS A SINGLE ENTERPRISE, FROM THE POINT OF VIEW OF SAFETY, OUR FACILITIES HAVE DIFFERENT CATEGORIES"

What other structures are included in the Corporate Security Division?

To ensure the collection process and correct work with information, a Rapid Response Service was organized. Service employees are on duty around the clock, they collect the necessary information from all CPC facilities, register it and report it to the management. In addition to messages from other units, the Rapid Response Service collects and analyzes data from engineering and technical security equipment, and, if necessary, organizes a verification of their reliability to exclude false or accidental alarms. This is an important and responsible job, and therefore it is important to have extensive experience in similar operational and dispatch services.

We also have a Transport Security Service in our structure. Even

though CPC is a single enterprise, from the point of view of safety, our facilities have different categories. And if the PS and the tank farm belong to the objects of the fuel and energy complex, then the onshore facilities of the Marine Terminal are an object of transport security, that is, of the same level with airports or railway stations, for example. That means that the facility falls under the special requirements of legislation and regulatory structures, and only a contractor with special accreditation can ensure security on its territory. Its actions are controlled by the CPC Transport Security Service, working interacting with the Rapid Response Service.

CPC attaches great importance to its economic security. Do you also have a special structure for this task?

Yes, CPC exists in the market space and has a large number of counterparties and partners. The Economic Security Service is called upon to guard the economic interests of the company and identify economic risks. This is a rather complex field, requiring both extensive basic knowledge in various fields (economics, finance, taxes, civil law, etc.), and extensive work experience. In addition, an economic security specialist must have an analytical mindset, industriousness and persistence. In particular, due to the work of this division, a number of transactions in 2020 were prevented that could potentially cause significant financial damage to our company.

It is worth saying a few words about one more of our structures. This is the Information Security Service. The world is changing towards digitalization, the transition to virtual and cloud spaces nowadays, and the pandemic has only accelerated these processes. Representatives of criminal communities are in constant search of modern computer technologies to commit technically complex crimes. Therefore, the government makes new demands on the protection of information systems, telecommunication networks and automated control systems. This area of relations is regulated by the Federal Law of 2017 №187 FL "On the security of critical information infrastructure (abbreviated CII) of the Russian Federation". The information security service is designed to prevent unauthorized access, use, disclosure, distortion, modification, research, recording and destruction of information. Balanced protection of data privacy is an important task for the new structure. It is one of the youngest and fastest growing security industries. At the same time, in our field of activity, the prevention of offenses is the most effective tool. And this, in turn, requires constant painstaking work, an integrated system approach, which is ensured by our entire Corporate Security Division.

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GUARDIAN OF INFORMATION INFRASTRUCTURE

THE CONSORTIUM HAS COMPLETED THE FIRST AND IS PROCEEDING TO THE SECOND STAGE OF STRENGTHENING THE PROTECTION OF CRITICAL INFORMATION INFRASTRUCTURE AT ITS FACILITIES

NORMATIVE BASE

At the beginning of 2018, Federal Law №187-FI of 2017 "On the security of critical information infrastructure (abbreviated CII) of the Russian Federation" came into force. It deals with important information systems, telecommunication networks, automated control systems, the violation of which can lead to various adverse consequences.

The executive body authorized to be a regulator in the field of ensuring the security of the CII is the Federal Service for Technical and Export Control (FSTEC) of Russia. It is enshrined in the decree of the President of the Russian Federation of 2017 №569 "On Amendments to the Regulations on the FSTEC of Russia". Specialists of the regulatory agency seriously approached the task set by the President and by the end of 2018 had developed and implemented a detailed regulatory framework that was necessary for categorizing potential CII facilities and creating systems for their protection.

Today the composition of the regulatory framework is wide enough and includes more than 20 documents. The key ones are the Government Decree of 2018 №127 "On approval of the Rules for categorizing facilities of the CII of the Russian Federation"», as well as Order of the FSTEC of 2017 №235 "On the approval of the Requirements for the creation of security systems for significant facilities of the CII of the Russian Federation and their functioning". These documents determine the sequence of actions that must be performed by all state structures and organizations of all forms of ownership, which have CII facilities. Such organizations in terms of FL №187 are called subjects of CII. In accordance with the Rules of categorization, it is necessary to carry out an inventory, survey and definition of categories of importance of the objects of CII belonging to the

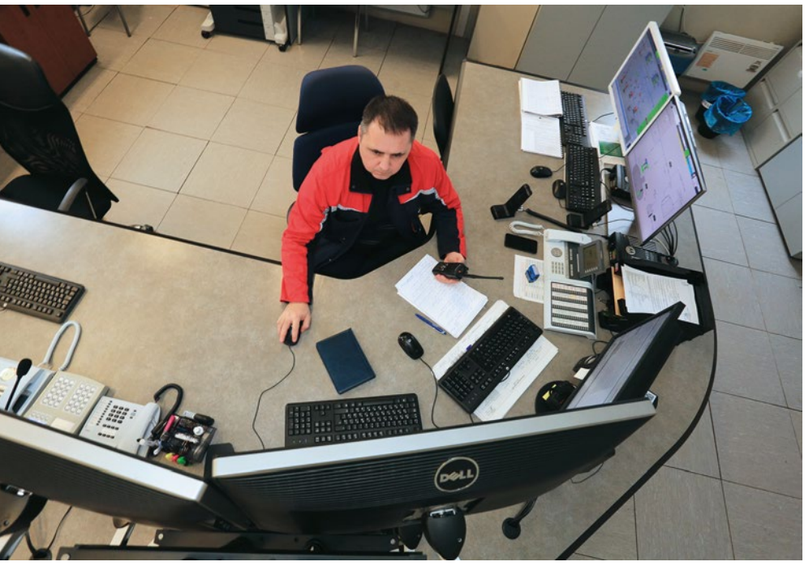
organization. Then, depending on the assigned category of significance, based on the Safety Requirements of the CII, design a protection system and determine the composition of means for its implementation. The next step, in accordance with the FSTEC Order No. 235, should be the implementation of the protection system and its further exploitation.

> CRITICAL INFORMATION INFRASTRUCTURE (CII) — INFORMATION SYSTEMS, TELECOMMUNICATION NETWORKS, ACS

A SIGNIFICANT TASK

The special importance that the state attaches to measures to protect critical information infrastructure is also indicated by the amendments to the Criminal Code of the Russian Federation that entered into force at the beginning of 2018. They establish criminal liability and considerable fines, including for the subject of CII, if he did not take all the necessary steps to protect it. In addition, the State Duma is currently considering a bill on amendments to the Administrative Offenses Code, establishing administrative liability for violations in the categorization of CII, the construction and operation of a system for its protection.

The regulations of the Federal Law №187 unambiguously determines that CPC is the subject of CII. Thus, the company operates an automated oil pipeline management system and a whole range of other information and telecommunications infrastructure. The disruption of its activities can entail serious consequences for the health and life of people, significant environmental damage, and seriously reduce the company's revenues and revenues to the budget of the Russian Federation. Therefore,



AS PART OF THE REFORM OF THE STRUCTURE, THE CORPORATE SECURITY DIVISION WAS CREATED, WHICH INCLUDED THE INFORMATION SECURITY SERVICE

the requirements of the legislation and the protection of the company from financial and reputational risks set CPC a significant task.

STANDING COMMISSION

By the decision of Nikolay Gorban, General Director of CPC-R, a standing commission was formed to categorize the company's facilities. It included the heads of the operation, information technology and security units. In addition, the commission included specialists in technological equipment, control and management systems, information and telecommunications infrastructure, emergency situations and labor protection, finance and safety.

In the course of its work, the commission determined the main production business processes and the objects of the information infrastructure of the Consortium involved in it. Among the business processes, critical ones were identified, the violation of which can lead to negative consequences, determined by GD №127. Also, a list of CII objects to be categorized was compiled, potential sources of threats to information security and known vulnerabilities that could lead to computer incidents were analyzed. In addition, the possible actions of various types of information security violators were considered. In accordance with the list of indicators of the significance criteria defined by GD №127, an assessment of the scale of possible consequences in the event of computer incidents at CII facilities was made.

CATEGORIES ASSIGNED

As a result of the work done, each of the CII CPC was assigned one of the categories of significance, or it was decided that there was no need in assigning any category. The decisions of the commission were formalized by the acts of categorization of objects of the CII, approved by the order of the General Director, who heads the categorization commission.

The main difficulty that the commission faced in the course of its work was obtaining an objective assessment of the importance of the company's CII facilities. It was necessary to show the most balanced approach, which allows to strictly comply with all the requirements of regulatory documents and at the same time take into account the Consortium's own interests when carrying out the categorization. An irrational overestimation of the category would cause an unreasonable increase in CPC's expenses for ensuring the safety of the CII in the future. In turn, an unreasonable understatement of the category would reduce the security of the infrastructure and lead to a negative reaction from the regulator.

Currently, all documents containing the main results of work on the categorization of the company's CII facilities have been sent for verification to the FSTEC of Russia. Thus, the first important stage of CPC's work on protecting its own facilities of the CII is practically completed. At the next stage, to which the Company will proceed immediately after receiving the FSTEC conclusion, the development of an integrated system for the protection of CII will be carried out. CPC is already conducting preliminary preparations, at present. As part of the ongoing reform of the structure of the security unit, the Corporate Security Division was created, which included the Information Security Service. The area of responsibility of this service will just include ensuring the security of the KII. The work in this significant direction in the company continues.

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A SCIENTIFIC APPROACH TO ECOLOGY

THE CPC MARINE TERMINAL IN YUZHNAYA OZEREEVKA WILL IMPLEMENT THE KEY STAGES OF THE ACTION PLAN TO IMPROVE CPC'S ACTIVITIES IN THE FIELD OF ENVIRONMENTAL PROTECTION IN 2021. THIS WORK INVOLVES SCIENTISTS FROM SPECIALIZED RUSSIAN RESEARCH INSTITUTES, ECOLOGISTS OF THE CONSORTIUM, SPECIALISTS FROM THE DBNP GROUP AND THE GOVERNMENT RELATIONS DEPARTMENT

We are all gripped by a magical holiday feeling when an ad for the popular soda is shown on TV in late December, with red trucks making their way through a snow-covered forest. And no one thinks about how these huge "Peterbilts" and "Freightliners" affect the environment with the exhaust of their engines. The main thing is that they bring joy to people.

It is difficult and unreasonable to expect zero emission from large seaports like Novorossiysk, comparable to the resorts of the Black Sea coast. First of all, the port is the economy on a federal and international scale, jobs, tax revenues to the budget, salaries and pensions. Nevertheless, socially responsible companies involved in the operation of the port of Novorossiysk are constantly improving the environmental indicators of their production activities, and CPC is no exception.

The principles of the Policy in the field of HSE which are guided by CPC in the implementation of

production activities, provide, in particular, continuous production and environmental control (PEC) at each of the facilities. Within the framework of the PEC, measurements at potential sources of emission – oil pumping equipment, tanks, pipeline fittings, etc. are regularly carried out. The results are submitted to the Ministry of Natural Resources of Russia, Rospotrebnadzor and other regulatory agencies, and are also published in the public domain.

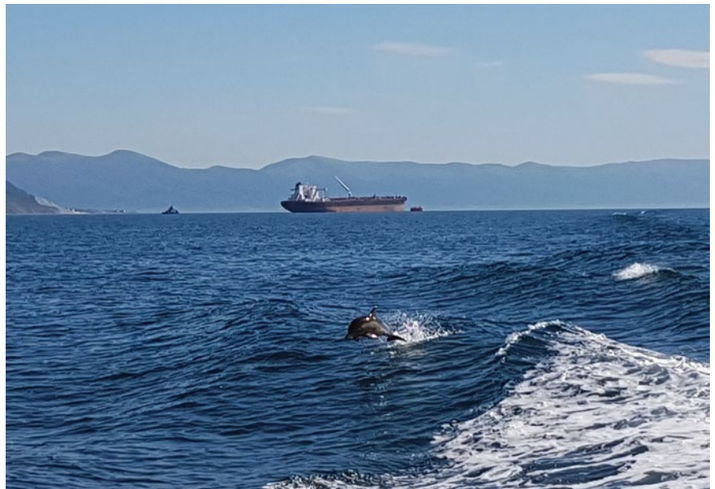
"At the Marine Terminal, PEC is carried out by specialists of the contracting organization KubanEKOproekt LLC, which has an accreditation certificate ROSS RU.0001.515951," says Ekaterina Korshunova, Environmental Manager of CPC-R. "Portable gas analyzers measure the actual amount of emissions of substances into the atmosphere at the objects of the working area, at the border of the sanitary protection zone – their presence in the air for compliance with the maximum permissible concentration (MPC). For 20 years of operation of the Marine Terminal, no violations of the amount of emissions and MPC standards were revealed according to the results of the PEC."

IN COLLABORATION WITH SCIENTISTS

Scientific research and development (R&D) carried out by leading specialized institutes has accompanied CPC's work throughout the history of the company. Thus, before the start of the project of creation of a pipeline from Kazakhstani fields to the oil port in Novorossiysk in 1990, the largest authoritative commission in the history of Russia was involved in the consideration of its documentation and environmental expertise: 235 domestic scientists, including 70 Doctors of Sciences, 90 academicians and correspondent members. One of the results of the work was the creation of an oil transshipment terminal, unique for Russia, with offshore loading systems leading in the world in terms of safety and environmental protection.

In the future, cooperation with scientists in the field of industrial and environmental safety of the CPC Marine Terminal in Yuzhnaya Ozereevka continued. Thus, mathematical modeling based on research by employees of the State Oceanographic Institute named after N.N. Zubov (FSI «SOI», the head scientific organization of Roshydromet) formed the basis for the development of the PISCES II system, which automatically predicts, monitors and evaluates the potential for emergencies in port water area.

With scientists from the Russian University of Chemical Technology named after D.I. Mendeleev Consortium has been cooperating since 2019 as part of the Action Plan to improve CPC's activities in the field of environmental protection.



LOCAL RESIDENTS WILL BE ABLE TO OBSERVE THE ENVIRONMENTAL PERFORMANCE OF THE MARINE TERMINAL IN REAL TIME

"In March 2020, air samples taken from two tankers loaded onto the SPM in three places of the vessel were transferred to the specialists of the Mendeleev University of Chemical Technology for analysis: the bow, the middle part, the stern," says Ekaterina Korshunova. "We also transferred CPC Blend oil samples for analysis to the RUCT."

In September 2020, within a week, 10 glass adsorption columns-concentrators installed by Moscow chemists in the coastal villages of Yuzhnaya Ozerevka, Myskhako and Glebovskoye were filled with air taking into account meteorological changes. The content of these devices is currently being investigated in the Moscow laboratory of the RUCT.

Glass columns installed by the specialists of the Russian Chemical Engineering Technical University are sorption concentrator devices 8x5 cm in size. They are filled with activated carbon with increased selectivity for hydrogen sulfide, mercaptans and mercury acetate. The air supply for automatic sampling into each of the columns is carried out by a built-in aspirator. Chemicals adsorbed in the column are analyzed under laboratory conditions using the most sensitive method of gas-liquid chromatography.

Based on the results of the research, all chemical compounds will be isolated from the samples taken, indicating their molecular formula and the exact amount in the air at the atomic level. These data will be correlated with the standards in residential areas for the maximum permissible concentration and the threshold of olfactory sensitivity. Also, calculations of the influence of meteorological conditions on the spread of volatile chemical compounds in the loading areas of tankers, water areas and coastal settlements will be made. Based on the results of this research, scientifically based solutions will be proposed for further scientific and technical developments and practical measures.

"Currently, the company is holding a competition among scientific institutes to carry out research work based on the research results," says Ekaterina Korshunova. "One of the participants in the tender announced the FSUE «Krylovskiy State Scientific Center». Thus, the cooperation of CPC with scientists continues."

IN REAL TIME

Along with research and technical projects, the Action Plan to improve CPC activities in the field of environmental protection also provides informational measures. Local residents will be able to observe the environmental performance of the Marine Terminal in real time on a screen installed in the village of Yuzhnaya Ozereevka.

"In order to increase the relevance of the data obtained, we have been planning for a long time to install a stationary gas analyzer with a photoionization detector at the border of the sanitary protection zone, which would measure the presence of pollutants in the atmospheric air around the clock and all year round," explains Ekaterina Korshunova. "This year the installation of this device will be part of a comprehensive eco-monitoring project, in the implementation of which several divisions of the company will take part."

In the course of construction work as part of the implementation of the Debottlenecking Program, another new facility will appear on the territory of the Marine Terminal – an Environmental Monitoring Post. Measurement data from a stationary gas analyzer located near the border of the sanitary protection zone will be received here for processing and systematization. The installation of this device, as well as the organization of the work of the Eco-Monitoring Post will be carried out by the HSE Department of CPC-R. In automatic mode, systematized information will be sent to the eco-monitor in Yuzhnaya Ozereevka around the clock.

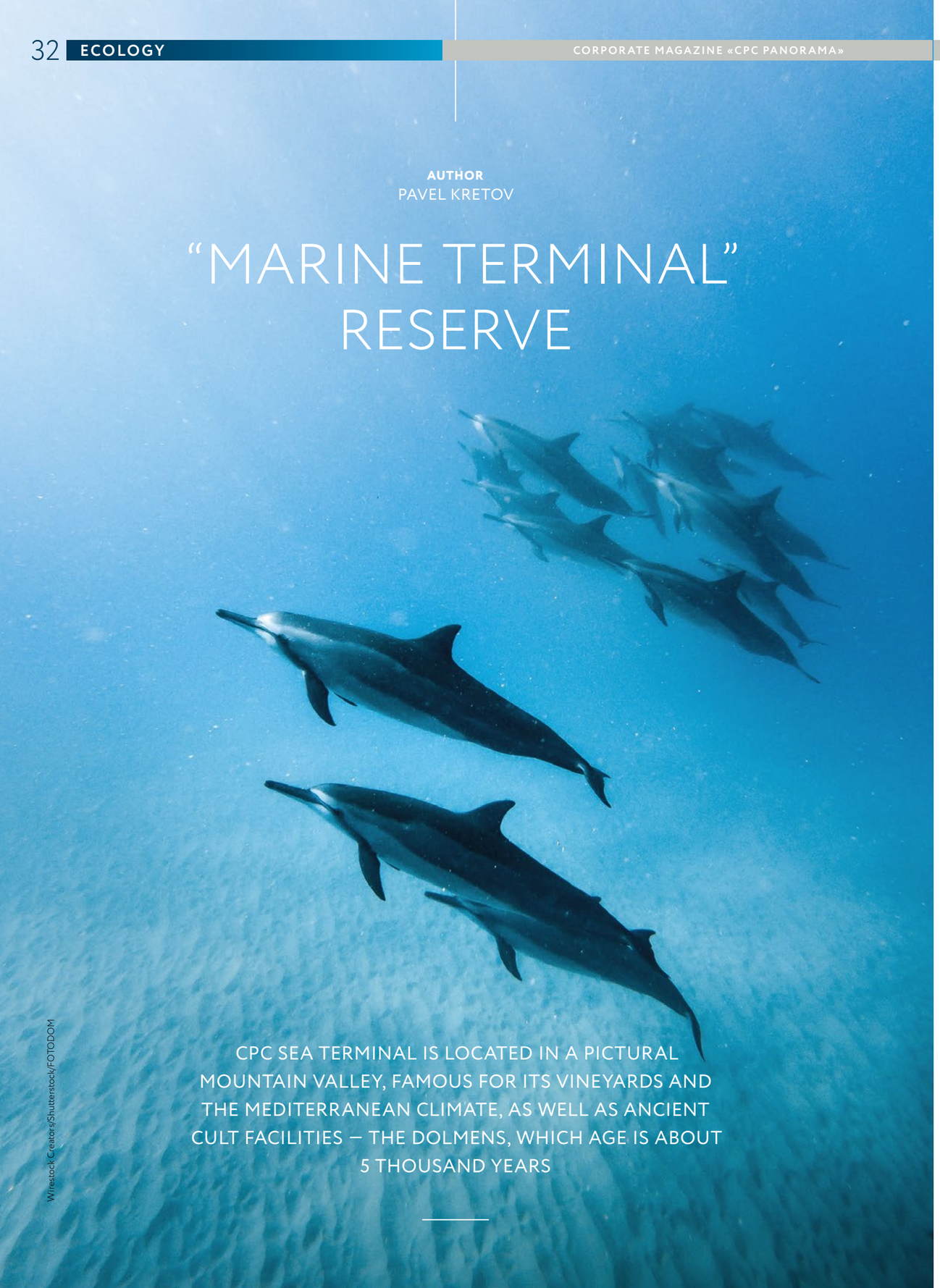
"A large-format liquid crystal eco-monitor will be installed on the facade of the Cultural and Aesthetic Center for Children and Youth (CACCY), the construction of which is expected to begin in 2021," says Igor Storozhenko, General Manager, Public and Authorities Relations of CPC-R. "Why CACCY? It solves several important tasks at once: land allocation for an eco-monitor, its protection, energy supply."

Every resident of Yuzhnaya Ozereevka will be able to monitor the environmental performance of the CPC Marine Terminal located nearby in the foreseeable future. Now such projects are gradually becoming a global trend: large industrial enterprises strive to make their activities transparent and publicly available – to objectify public opinion, which is sometimes subject to unhealthy sensations of the gutter press.

"Scientific research, information support of the population, implementation of practical measures – CPC has done significant work in these areas in 2020," says Ekaterina Korshunova, Environmental Manager. "It is important to realize that all these processes are interconnected and large-scale, each of them has its own cost and implementation period. The work is underway, a lot has already been done and the Caspian Pipeline Consortium continues to improve its activities in the field of environmental protection as one of the priority tasks of production."

AUTHOR
PAVEL KRETOV

“MARINE TERMINAL” RESERVE



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CPC SEA TERMINAL IS LOCATED IN A PICTURAL MOUNTAIN VALLEY, FAMOUS FOR ITS VINEYARDS AND THE MEDITERRANEAN CLIMATE, AS WELL AS ANCIENT CULT FACILITIES — THE DOLMENS, WHICH AGE IS ABOUT 5 THOUSAND YEARS

SUCCESSFUL HUNTERS

The water area of the oil terminal is a true paradise for dolphins. Here they feel completely safe. Dolphin flocks accompany ships and sometimes, to the delight of people, arrange real shows, jumping high out of the water. Why are these smart animals so attracted to the oil port? The fact is that the object is strictly guarded, and it is forbidden to enter the water area for unauthorized vessels from where fishing can be carried out, including by poaching. So, dolphins have a rich food base and feel very comfortable here.

“A lot of fish keep near the hydraulic structures — hexabites, which protect the CPC harbor. And when the ships leave it, the disturbed fish immediately scatters in different directions. Dolphins watch for this moment and what uninitiated observers often consider to be a carefree game with the waves — in fact, a calculating and highly effective hunt,” comments Aleksey Sitnik, CPC Offshore Maintenance Manager.

During their dives, the Consortium divers regularly observe a large number of various fish in the vicinity of the underwater infrastructure and remote mooring devices — the mullet family, horse mackerel, garfish and others. There are also many mussels, which, as scientists know, feed by filtering water, and are extremely demanding on its purity.

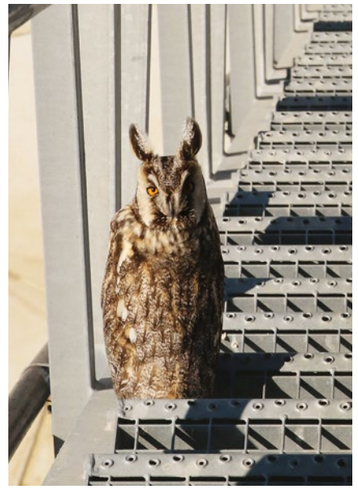
CPC TANK FARM AREA IS **160** HECTARES, THAT IS COMPARABLE TO A NATURE RESERVE

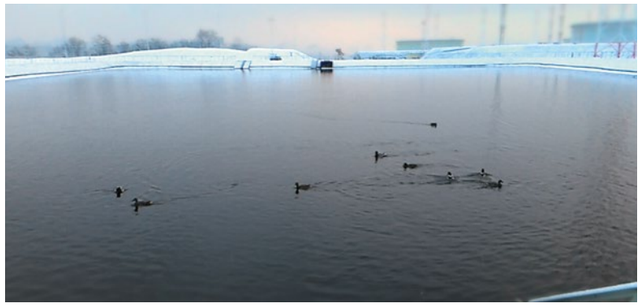
The closure of the CPC operating area for fishing has caused a sharp increase in the population of such a valuable commercial fish species as flounder. This is an explanation for the fact that fishing vessels appear on the immediate border of the oil port water area so often, all movements of which, however, are always under the vigilant control of both CPC specialists and the seaport administration.

COUNT HARES

The Consortium’s Tank Farm is located in the mountains 9.5 km from the offshore and onshore facilities of the CPC Marine Terminal. A few years ago, botanical scientists discovered a new species of orchid from the genus Dremlik on the slopes of these mountains. This is a large, drooping yellowish-green flower with a long pedicel and a very peculiar bud structure. The find was named “Black Sea Dremlik” in international catalogs.

Securely guarded by the security service the tank farm is almost like a nature reserve in the care of the gamekeepers. Even its area is comparable to a protected natural territory — 160 hectares.





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Driving to the shift along a steeply upward road from the village of Glebovskoye, the operational personnel of the Consortium often observe raccoons, roe deer, jackals, wild boars. We saw even a large deer, however, only once. Hawks and kites soar in the sky. At the facility itself, CPC employees most often meet hares.

"Last year I was driving through the territory of the Tank Fark, saw a lot of hares and even began to count them: I counted more than 20 in just three minutes," Yuri Russ, an Electrician for maintenance of electrical installations, shares his observations. "They are especially active in jumping in pairs from May to August. Sometimes they behave rather boldly, in the sense that they allow themselves to be photographed from a very close distance, however, maybe they hope that a person will pass by without noticing them".

His partner Yuri Nechiporenko was lucky to see and take a picture of a rare stag beetle included in the Red Books of many European countries, including the Russian Federation.

PROTECTED AVIFAUNA

According to Yuri Russ, many ravens nest near the Tank Farm – true, large, black, and not those of their relatives, which many mistaken for ravens in the city.

By the way, several years ago CPC held special measures in the area of its production facilities to enhance the safety of avifauna. The consortium equipped high-voltage lines with self-supporting insulated wires (SIW), replaced pin insulators with suspended ones, installed bird protection devices (BPD) in the form of polymer caps that completely cover the insulator, as well as protective casings (sleeves) that insulate the current-carrying wire in the area of the support head. This eliminates the possibility of birds touching the metal parts of the supports and wires and their death from electric shock.

Speaking of the birds that come to hunt in the territory of the Tank Fark, one cannot but mention the scops owls. Small bird of prey no more than 20 cm in size feeds on insects, small frogs and lizards. Of the latter, the most interesting for the herpetologists are the rare legless jaundice lizards. In many habitats, they are endangered and listed, including the Red Book of the Krasnodar Territory.

"But at our facility, the lizards are safe: apart from natural enemies, nothing threatens them here," emphasizes Yuri Nechiporenko.

Marine Terminal storekeeper Sergei Badzio shared his trophy – a close-up photo of a pair of foxes.

"I took this photo two years ago next to the production service base – the outermost building of the Tank Farm," says Sergey. "The foxes were not afraid at all, they posed for me a little and imposingly left about their business."

For wintering, migratory birds fly to the accumulating pond of the Tank Park, which they for a natural reservoir. Thanks to waterfowl birds that have laid eggs on their paws, fish sometimes appear in the pond, and this food base attracts flocks of wild ducks, which refuse to fly to the south and perfectly coexist with people working in a large and complex production facility.

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FREESTYLE IN THE CAPITAL OF KALMYKIA

AT THE END OF DECEMBER 2020, THE STRONGEST ATHLETES IN EXTREME KINDS OF COMPETITIONS OF RUSSIA ARRIVED IN ELISTA. TOGETHER WITH THE HEAD OF THE REPUBLIC OF KALMYKIA BATU KHASIKOV, THEY TESTED THE RECENTLY OPENED SKATE PARK

Batu Khasikov thanked the Caspian Pipeline Consortium for the opportunity to develop a new extreme direction in sports and stressed that a modern skate park will become a symbolic gift for young people on the eve of the new year.

"Guys here will go in for sports, breathe fresh air, communicate, here they will be able to escape from gadgets and social networks," said the Head of the Republic.

The right to cut the symbolic red ribbon was granted to the Representative of CPC-R for relations with the government of the Republic of Kalmykia Mingiyan Batnasunov, the young skateboarder of Elista Angelina Naminova and the champion of Russia in extreme sports Sergey Simkin.

Sergey is confident that the skate park in Elista, which was designed with the participation of professional athletes, will increase the safety of training for children and adults who are fond of skateboarding, cycling, roller sports and scootering.

"Now people, who previously arranged improvised platforms on the streets and squares, adapting objects of urban infrastructure to perform stunts will come to this park," he says.

"I know many promising athletes from Elista who previously lacked conditions. Now they can progress, perform more and more complex figures and elements," his countryman, BMX rider from Krasnodar Andrey Luzanin supports his friend.

THE HEAD OF THE REPUBLIC OF KALMYKIA BATU KHASIKOV TOOK PART IN THE OPENING CEREMONY OF THE SKATE PARK

THE SKATE TRACK STRUCTURE CONSISTS OF INCLINED SIDE AND RADIUS FIGURES LOCATED ON AN AREA OF

1 THOUSAND M²

The construction of the facility was carried out by XSA, which has vast experience in the construction of a skateboard not only in Russia, but also abroad. CPC allocated almost 12 million rubles for the implementation of the charitable project.

The skate track structure consists of inclined side and radius figures located on an area of 1 thousand m2. It includes a multifunctional skating facility that simulates urban obstacles — a street plaza — which also serves as an accelerating platform for other figures. Here are the obligatory figures for the skatepark — the "quarterpipes" — used in the freestyle discipline: in skateboarding, BMX cycling and other types. The skate track is equipped with a "spine" and several "flyboxes" — springboards for performing spectacular tricks in the air.

A special bioprotected coniferous timber sewn into two layers of shock-resistant plywood was used during the construction of the skate park. At the opening ceremony of the sports facility, it was noted that about 30 skateboarders and BMX cyclists will be able to train in the skate park simultaneously.

"We are pleased to present the citizens with a skate park of international level, which, I am sure, will become a worthy part of the dynamic life of our youth, will be in demand and will help athletes to improve their skills", the Representative of CPC-R for relations with the government of the Republic of Kalmykia Mingiyan Batnasunov noted at the opening ceremony of the skate park. "We hope that this specialized space will help to prepare the republican team in extreme sports in the future."

"We will gladly come to new major competitions in your city," professional athletes expressed their readiness.

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ABOUT COLLEAGUE AND FRIEND

IN NOVEMBER 2020, THE HEART OF THE LEAD HSE ENGINEER KONSTANTIN GOVORUKHIN STOPPED BEATING. FRIENDS AND COLLEAGUES – SPECIALISTS OF THE CPC CENTRAL REGION SHARED MEMORIES OF HIM ON THE PAGES OF THE MAGAZINE

NORTHERN EXPERIENCE

Konstantin Govorukhin joined CPC on the last day of spring 2001. Before that, he worked as the chief state inspector for the supervision of main product pipelines of the Office of the Nizhne-Volzhsky District of the Gosgortekhnadzor of Russia. He also checked the CPC facilities, which in those years were still on the balance sheet of JSC AK Transneft.

"He was a very principled inspector," recalls Viktor Tokarev, Deputy Manager for Operations and Maintenance of the CPC Central Region. "At the same time, while interacting with Konstantin Konstantinovich, we always felt that he sees his most important function not in finding and fixing violations, but, first of all, in realizing the safety of an industrial facility."

In addition to his remarkable personal qualities, Konstantin Govorukhin had extensive experience in the oil and gas industry. He has built, operated and inspected various pipelines for nearly two decades, of which eight years in the Far North. And, of course, all this knowledge, combined with responsibility and a real business approach, was especially useful for the Consortium, which is completing the large-scale construction of the Tengiz – Novorossiysk pipeline system.

And in the future, Konstantin Govorukhin made a significant contribution to ensuring industrial and environmental control, compliance with the requirements of the legislation on HSE in all divisions of the Central region. He actively interacted with state supervisory authorities on labor protection, industrial and fire safety.

CORRECTLY AND EFFECTIVELY

Nail Azhgildiev, a Lead HSE Engineer shares his memories of a colleague:

"My first meeting with Konstantin Konstantinovich Govorukhin took place in the summer of 2009, when

CPC-R was preparing for a comprehensive joint practical drill (CJPD). I was working as the head of the Astrakhan branch of the "Center for Environmental Rescue Operations" at that time. At that time, Konstantin alone in the Central Region was responsible for all areas – labor protection, production safety, civil defense, emergency situations, fire safety and oil spill response. He did a lot of preparatory work for the CJPD, but still worried about the result of the exercises at the federal level – with the involvement of a large number of organizations, personnel and equipment, in the presence of observers from supervisory authorities. By the way, the exercises were held at the highest level, the actions of CPC-R deservedly received an excellent mark."

"I met Konstantin Konstantinovich in the spring of 2010: he gave me an introductory briefing when applying for a job. And then he never refused to help, he taught and advised on all problematic issues," says Sergey Mikhailov, HSE engineer at Komsomolskaya PS.

During the implementation of the CPC Pipeline System Expansion Project, in 2011–2014 Konstantin Govorukhin was directly involved in the admission of contractors' employees to high-risk operations at the reconstructed Astrakhanskaya and Komsomolskaya PS. He regularly conducted introductory briefings, checked the knowledge of all types of work performed, the correctness of registration of work permits and conditions of safe work in accordance with the company's procedures.

"During the Expansion Project, Konstantin Konstantinovich competently and efficiently performed a serious amount of work," says Sergey Kopylets, Senior Engineer, Civill Defence, Emergency Response, Oil Spill Response and Fire Safety. "For this contribution, he was even awarded a diploma from the Ministry of Energy of the Russian Federation in 2015."

"EVERYTHING IS FINE! WE'RE THE BEST"

For high professional knowledge, work experience, the ability to find the right solution, as well as organizational skills, Konstantin Govorukhin was transferred to the position of a lead HSE engineer, and then he was appointed the head of the newly formed department. A team of specialists and like-minded people trained by him successfully solve numerous tasks nowadays.

Colleagues fondly remember the time they spent with Konstantin Govorukhin in an informal setting.

"Konstantin Konstantinovich loved and knew bard songs. When someone picked up a guitar, he and his wife sang along with pleasure," says Sergei Smirnov, HSE engineer at Komsomolskaya PS.

"A keen and experienced fisherman! If you need advice on fishing, then you can safely ask him. He said: "How nice it is to sit in a boat, throw a fishing rod. A boat floats down the Volga and pleasant thoughts float in my head",- continues Sergey Kopylets.

Deputy Manager of the Komsomolskaya PS, Nikita Zosimov recalls October 2020:

"Konstantin Konstantinovich, as always, in a friendly manner drew attention to the nuances of the design of the permission orders. He asked about the mood, health, and the situation at the facility. He complained about a difficult year. He said: "A couple of months more and 2021 will come, we will break through! And he added: «Everything is fine with us – we are the best!». He often supported his colleagues with this phrase. It was his slogan."

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PAVEL KRETOV

THE LARGEST IN THE WORLD

HALF A CENTURY AGO, IN 1970 THE CONSTRUCTION OF THE ALEXANDROVSKAYA – ANGERO-SUDZHENSK OIL PIPELINE STARTED IN THE USSR

The existence of huge oil deposits in Western Siberia was spoken about back in the 30s of the last century by Academician I.M. Gubkin, however, industrial production of "black gold" here began only in the 60s. The oilmen had to overcome huge swampy areas, impenetrable taiga, and permafrost regions during the development of these territories. It was here that air cushion drilling rigs were first used, a method for lowering the temperature of the roadway due to the evaporation of natural gas was developed, and special supports for oil and gas pipelines were designed. Experts from the capitalist countries called the oil epic of Western Siberia "a desperate gamble", denying it economic feasibility. But they miscalculated: due to the high density of the reserves of raw materials, as well as the depths that are very accessible for production, the cost of Siberian oil turned out to be even lower than the average all-Union. By the early 1970s, Western Siberia came out on top in terms of oil production in the country, leaving Baku and Tatarstan behind.

The development of the West Siberian region required a revision of the concept of the Soviet oil pipeline transport. If earlier, it was necessary to drive oil from Tataria and Bashkiria through pipelines to supply the eastern regions of the USSR, now the Tyumen North could supply "black gold" both to the west and to the east of the country alone. The construction of the largest in the world at that time oil pipeline Aleksandrovskoe – Anzhero-Sudzhensk with a diameter of 1220 mm and a throughput capacity of up to 72 million tons of oil per year was required to solve these problems. Through this pipeline, the Tyumen and Tomsk oil was supposed to enter the Omsk-Krasnoyarsk-Irkutsk pipeline, which was eventually planned to be extended to the Pacific coast.

The first launch complex of the Aleksandrovskoe – Anzhero-Sudzhensk trunk line included 818 km of the linear section and two PSs – Aleksandrovskaya and Parabel. Preparations for the construction of the oil pipeline

began in February 1970. Contractors, among which there were five powerful trusts and dozens of specialized departments from all over the country, had to operate in undeveloped areas of the Tomsk region among the world's largest Vasyugan swamps. During the navigation period on the Ob River in the summer of 1970, materials, fuel and pipes were delivered. The builders delivered them by rail, then loaded them onto river transport.

The first joint of the oil pipeline was welded on July 20, 1970. By October, about 1 thousand workers were working at the construction site, they cut 166 km of clearings, prepared 12 km of fallow roads, dug 20 km of trenches, welded 16 km of pipeline into a string. 450 km of pipes and 60 valves were delivered to the highway. And yet the technical resources at the construction site were not enough: the first cranes and pipe-layers arrived only in November. The first winter season was disrupted due to this reason – the builders did not have enough time to weld and lay the northern section of the pipeline as planned.

THE FIRST JOINT OF THE OIL PIPELINE WAS WELDED ON JULY 20, 1970

Significant organizational measures were taken, and strict control was established on the delivery of additional construction machines and mechanisms, during the navigation of 1971, but by the end of the year it was not possible to overcome the critical situation at the construction site. Therefore, given the extreme importance of the construction of the oil pipeline, in January 1972, the headquarters of the construction was headed by the Minister of the Gas Industry A.K. Kortunov. Thanks to his personal involvement, the situation began to improve quickly. A large number of pipelayers, tractors, bulldozers, excavators, dump trucks and welding machines arrived from factories. The number of builders was brought to 3 thousand people.

The fight against endless swamps and dense taiga continued. The temperature often dropped below –50° C in winter. The snowfall in February 1972, when in one night about 15 km of the trench

already prepared for laying the welded pipeline was covered with snow was particularly memorable to the builders. The next day, snow was removed from the trenches, with more than 300 local residents involved. The timber industry enterprises also made their contribution to the construction: they allocated people and equipment for the construction of stubble roads, clearing and maintaining winter roads.

Moving towards each other from the north and south, the two construction teams, leading the laying of the linear part, met in March 1972. At the 395th kilometer of the highway, the last "red joint" was welded, marking the end of work along the entire line. The oil pipeline was accepted into permanent operation in June 1973. In a congratulatory telegram to the builders, the General Secretary of the CPSU Central Committee L.I. Brezhnev noted: "More than 800 km of pipes with a diameter of 1220 mm were laid, over 3.5 million m3 of earthworks were completed, a large complex of pumping and energy facilities was built in a short time, in the difficult natural and climatic conditions of Siberia. It is important that this pipeline was put into operation in a short time and about 22 million tons of Siberian oil were pumped through it to the eastern regions of the country."

MORE THAN

800 KM

OF PIPES WERE LAID IN A SHORT TIME IN DIFFICULT NATURAL AND CLIMATIC CONDITIONS OF SIBERIA

At the same time, the experience of implementing the Aleksandrovskoye – Anzhero-Sudzhensk oil pipeline project also revealed a number of organizational and technical construction problems that required an urgent solution. Therefore, in 1972, the Ministry of Construction of Oil and Gas Industry Enterprises of the USSR was formed, and a whole network of territorial central administrations under it. Large-diameter pipelines began to be laid by specialized integrated technological teams, which ensured a rapid increase in labor productivity and several times increased the pace of development of the oil and gas industry.

AUTHOR
PAVEL KRETOV

TRANS MOUNTAIN PIPELINE

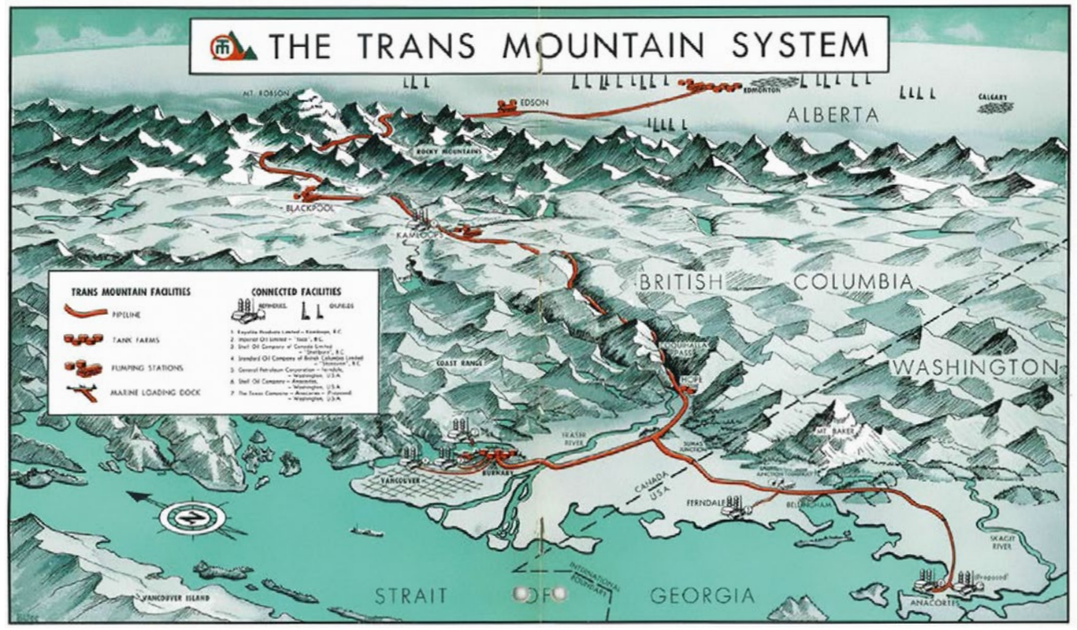
70 YEARS AGO, CANADA STARTED WORKING ON THE TRANS MOUNTAIN PIPELINE PROJECT

NO BUREAUCRATIC OBSTACLES

In February 1947, a large oil deposit, Leduc, was discovered in Alberta, southeast of Edmonton. Geographically and environmentally, it was the worst place in Canada to ship crude oil to customers from, but the rapidly growing demand for energy supply to sustain the post-war industry didn't make it seem like a formidable obstacle.

In 1949, the Government of Canada initiated adoption of the Pipelines Act, which allowed transfer to the federal level and maximum facilitation of bureaucratic procedures required for approval of both international and interprovincial pipeline projects.

THE MAP OF THE TRANS MOUNTAIN PIPELINE



The 1,840 km Interprovincial Pipeline, which went from Alberta to Lake Superior in the eastern part of the country, was the first of major lines built for hydrocarbon transportation. There, at Lake Superior, oil was loaded to tankers and shipped to various Ontario oil refineries. This pipeline was put into operation in December 1950; this month also witnessed the start of surveys at the Trans Mountain mainline, which was supposed to connect Edmonton to Burnaby Marine Terminal (near Vancouver) located at Canada's Pacific coast.

A ROUTE OF GREAT EXPECTATIONS

Great expectations were laid on the Trans Mountain Pipeline. It was due to the fact that the oil-refining industry of British Columbia, the westernmost province of Canada, used crude oil shipped by tankers from the US in 90 % of cases, so the countries were having arguments now and then on what was the fair price.

The route of the Trans Mountain Pipeline 1,155 km long and 600 mm in diameter crossed the Yellowhead Pass in the Canadian Rockies at an altitude of 1,131 m above sea level and Jasper National Park. Throughout the spring and in the early summer of 1951, air services were flying between Edmonton and Vancouver taking detailed pictures of every kilometre of the pipeline. Then, with the help of these pictures, design engineers walked along the entire route on foot, marking every section of the pipeline on site. The mainline ran in parallel to the operating railroad, crossed 89 km of wheat fields, 322 km of forests, 113 km of farmland, and 640 km of mountains, valleys, and plateaus.

In total, the builders received about 3,000 approvals from the owners of state, municipal, and private lands. The pipeline crossed motorways and railways 56 and 24 times, respectively.

Special permits were received to lay an 80 km section of the pipeline across the territories of Jasper National Park and few other regional nature reserves.

EXTREME ACCELERATION

Having executed all the necessary papers, contractors started clearing up the route in February 1952. Pipes were stocked at 140 warehouses located along the oil pipeline route. More than 2,500 workers were engaged for this project, 90 % of whom were Canadian citizens. The quality of works was controlled by experienced oil pipeline experts from the US. They came from the states most involved in the oil industry: Texas, Oklahoma, and California. X-ray units were actively used to check the quality of welded joints.

During the autumn of 1952, five independent groups were working on the pipeline. Three of them were working between the city of Kamloops and Jasper National Park; the fourth group was working near Edmonton; and the fifth group was working in the Fraser Valley near Vancouver. At the peak of their joint efforts, the builders reached the pace of up to 5 km of the laid pipeline per day. Before the rain and mud season, the contractors completed more than a half of the linear portion of the pipeline. During the offseason, the equipment was returned to the bases, where it was repaired and cleaned before the finishing leap.

In the winter of 1952–1953, the building focus shifted to the tank farm sites in Burnaby and Edmonton, where floating-roof vertical steel tanks with a volume of 150,000 barrels were being mounted. Welders were performing vertical welds of the tanks manually; horizontal welding was performed using welding machines, which significantly accelerated the tank mounting process.

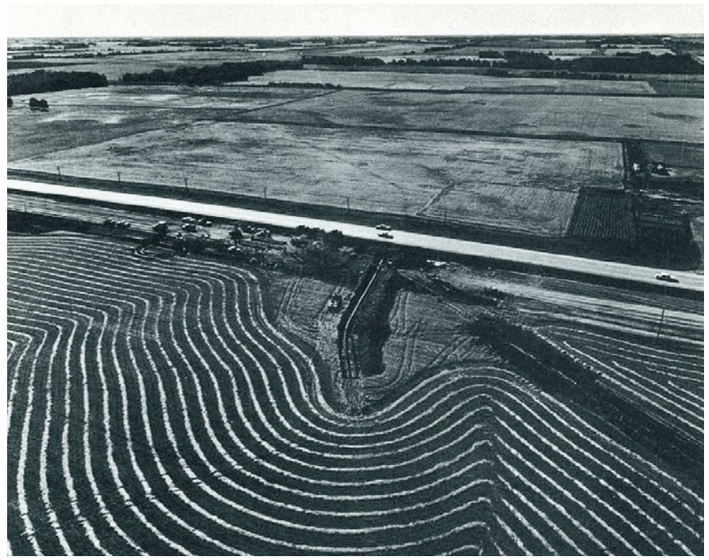
A CABLE-HUNG BULLDOZER DIGS A TRENCH ON A STEEP SLOPE OF THE ROCK

INVALUABLE EXPERIENCE

To sustain the operating pressure in the pipeline, three oil pump stations were built. Two of them were located east of the Rockies — in Edmonton and Edison; one was located west of the Rockies —i n Kamloops. The stations were equipped with main centrifugal pumps driven by diesel engines.

In October 1953, the Trans Mountain Pipeline, which connected Edmonton, Vancouver, Canada, and oil refineries in Puget Sound, Washington, USA, was put into operation. At the official opening ceremony, a representative of Bechtel, the general contractor, described the difficulties the builders faced, saying: "And now we can be sure that we can build anything, anywhere, and at any time."

At first, the pipeline operated with two pump stations, which allowed 75,000 barrels per day to be pumped through it. When two more stations were added, it became possible to double this volume. In 1973, after loopings were mounted and pump stations were retrofitted, the pipeline flow capacity reached 410,000 barrels per day.



CONSTRUCTION OF A TRANS MOUNTAIN PIPELINE CROSSING OVER A MOTORWAY

DEEP ROUTES

CONTINUING THE THEME OF TOURIST ATTRACTIONS IN THE REGIONS OF CPC PRESENCE, WE ARE MOVING FROM SALT LAKES TO CANYONS. FAMILIAR TO US FROM THE ROMANCE OF AMERICAN WESTERN FILMS, THESE UNIQUE MOUNTAIN FORMATIONS EXIST BOTH IN RUSSIA AND IN KAZAKHSTAN, EACH ATTRACTING THE ATTENTION OF A TRAVELER IN ITS OWN WAY

AUTHOR
GULZHAN ISMAGULOVA

CHARYN CANYON. THE REPUBLIC OF KAZAKHSTAN

"Kazakhstani Grand Canyon" is an impressive geological formation, which is interesting to see at any time of the year. Silence and tranquility reign in this amazing place, where the large Ili Lake was once located, which became shallow 12 million years ago. The total length of the canyon is 154 km.

A unique natural monument – Charyn canyon – is located near the border with China, two hundred kilometers from the southern capital of Kazakhstan, Almaty. This is an amazing, mystical place where over three hundred meters high multi-colored rocks of unusual shapes and outlines hang over travelers. Their unique color is due to geological layers of rocks: from era to era.

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Millions of years ago there was a tectonic fault in the earth's crust, then a volcano erupted for some time. Plagioandesites were layered on lavas and tuffs, over time they were covered with layers of clay with lenses of marls, gravelstones and sandstones. Sometimes in the veins of rocks you can find transparent crystals – calcite minerals. These horizontal stripes become brighter and more contrasting – delicate ocher shades begin to glow red, and copper turns into maroon at sunrise and sunset.

ILI LAKE BECAME SHALLOW

The Valley of Castles stretches for two kilometers, which strikes the imagination with bizarre colors and shapes, reminiscent of the buildings of ancient (Egyptian? Babylonian? Achaean? Aztec?) architecture. With a certain amount of imagination, one can guess the face of a sphinx, or an ancient deity sitting on a throne in the rock formations. There is absolutely no greenery here, and birds of prey proudly soar in the azure sky in full accordance with the aesthetics of the western.

For millions of years, the climate in the Charyn gorge has remained practically unchanged, and this is evidenced by the grove of the Sogdian ash tree, a tree that could survive the Ice Age. Sogdian ash trees are 10 meters high, and their thickness can reach several meters. This is one of two places on Earth where unique trees have survived.

12
MILLION YEARS AGO

The unique landscape attracts thousands of tourists every year. Far from big cities and other preferences of civilization, without hustle and bustle, everyone will be able to discover the planet here anew, rethink life and understand their true purpose. The slopes of the canyon are a treasure not only for tourists, but also for paleontologists – the remains of ancient animals are found here every year. In order not to become another fossil mastodon, it is important to observe safety requirements on the route: sunglasses, hats, sturdy shoes, water supply.

You can get to the Charyn canyon in different ways – by personal transport, by bus following the route Almaty – Narynkol, or order an individual tour. Weekend tours are very popular. After a fascinating walk, each traveler can relax in a tourist camp, where he will be offered authentic Kazakh cuisine and local drinks. It's worth trying – everything is prepared by local chefs in front of the guests.

Such local specialties as "Dragon's Gorge", "Witches' Tract" and "Stone Bag" will forever remain in the memory of everyone who visits the Charyn Gorge. The rocks "sing" here under the influence of the wind due to the peculiarities of the porous structure, which is especially well heard by daredevils who stay overnight. In July-August, they can also observe a meteor shower coming from the constellation of Perseus. So the stars are especially clearly visible from a deep well without any telescopes. This is how great canyons make our life more diverse.

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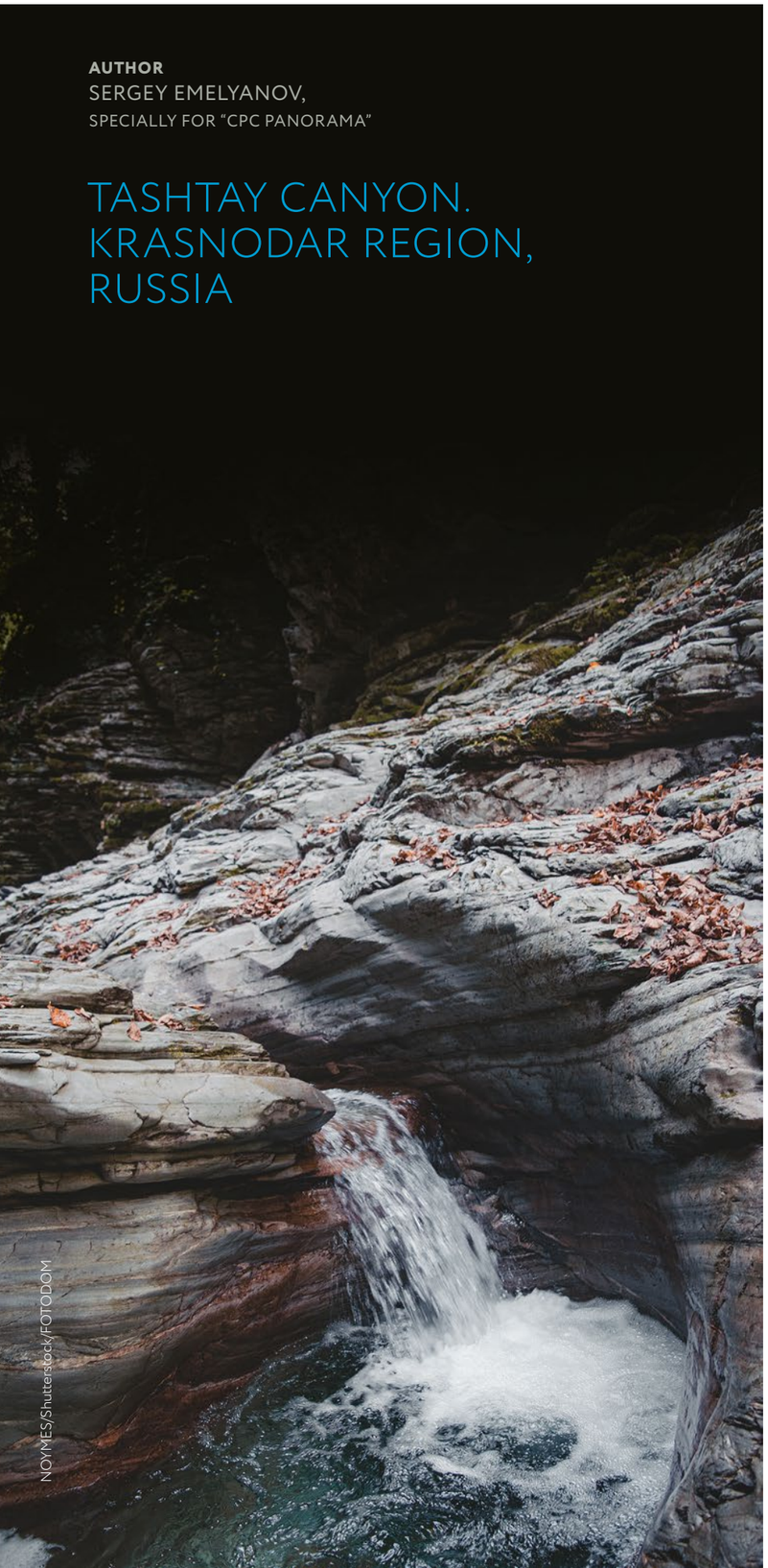
SPECIALLY FOR "CPC PANORAMA"

TASHTAY CANYON. KRASNODAR REGION, RUSSIA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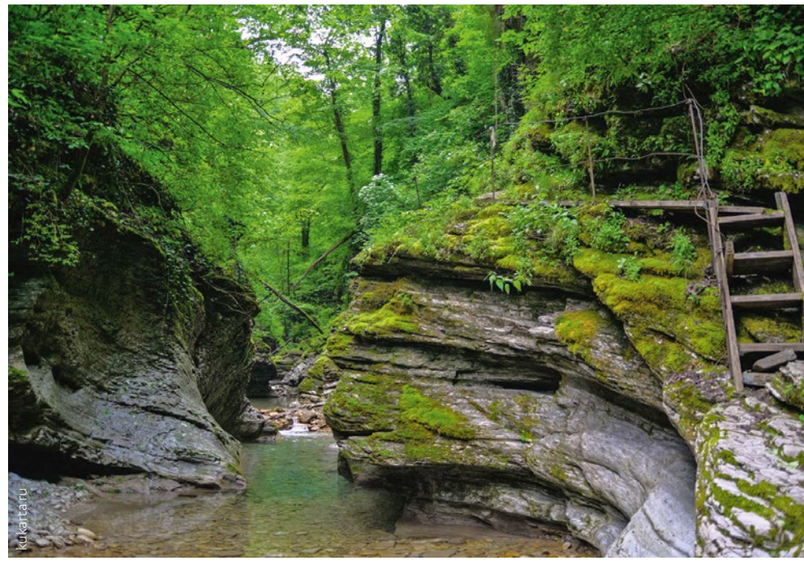
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The Tashtay (Beshenki) River Canyon is considered one of the most beautiful natural places in the Krasnodar Territory among hiking enthusiasts. Trekking (and sometimes swiming) along the canyon is a great opportunity to test your character for strength.

The canyon is located near the Indyuk village, Tuapse region, which can be reached by minibus from Tuapse, by rail, or by car. From Krasnodar you need to get to the village of Indyuk and turn right at this turn. A distinctive sign is a railway bridge over the road after a turn, if you go from the Shahumyan pass. After a few kilometers, at the exit to the left, you can see small signs indicating the direction. Immediately after the exit there is a river, which in the middle of summer is easily forded by a car with a high ground clearance. However, you can leave the car at the entrance and change to UAZ cars with local drivers who will take travelers to the beginning of the route.

Next, you need to move on foot through the apple orchard, and then through the forest along the bank of the Chilipsi River, into which the Tashtai River flows into.

The canyon is better known as the Beshenka, although in fact the Besheny stream is another tributary of the Tashtay river, which, by the way, also has a canyon. Tourists constantly confuse these two adjacent canyons. In fact, everything is simple: the first canyon is located on the Beshenom stream, and the second, landscaped one, is on the Tashtay river.

THE HEIGHT OF THE CANYON SPURS IN SOME PLACES REACHES

40

METERS

The length of the walking route along the canyon is about 2.5 km. But given the difficulty of passing, this distance will not seem small. The route is partially equipped with stairs and railings, but they are only at the very beginning of the path and there are not so many of them.

There are two paths through the canyon. One is on top, quite extreme and unsafe. The paths are narrow, so you need to follow the trail. One awkward movement and you can easily slide down the rocks. The second way is down the water. It is much safer, but you need to be prepared to overcome some part of the path by swimming.

If you go on top, you need to provide comfortable, tight-fitting ankle shoes with non-slip soles, and better with a tread. It is better to move in a group of several people, since mutual assistance may be needed during the ascents and descents. The rocks here are quite steep and slippery with moisture. The height of the canyon spurs in some places reaches 40 m, the rocks are made of marl.

If you walk on water, you should immediately put on swimming trunks or a swimsuit under your outerwear. There is absolutely nowhere to change on the spot (except in the car). Be sure to take a change of clothes and shoes with you on the road. You should have light rubber shoes or sandals on your feet that are well fastened as you will have to swim in them. Beach slippers are strongly discouraged – in the most difficult areas you can injure your legs, or the "flip flops" will simply float away.

The water path is very beautiful. The depth of the river differs radically along the entire route. You will have to periodically immerse yourself in water up to your waist, then up to your chest, and swim in some areas, since the depth will reach two meters, especially after rains. But the choice of the path along the water will allow you to appreciate all the beauty of the canyon. Swimming in a mountain river is included as a bonus.

The one-day route through the canyon takes three hours there and back, including rest stops. The infrastructure at the beginning of the route is quite developed: there are gazebos, picnic sites, even a bathhouse. The best time to visit Tashtay canyon is summer, while it is important to choose sunny and dry days. It is not by chance that the local river was named Beshenka ("rough", "mad" from English): in rainy weather it becomes very stormy and it is better to refrain from traveling along the canyon at this time.

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IS THE STAFF OF LIFE

THROUGHOUT THE HISTORY OF MANKIND, BREAD REMAINS THE MOST ECONOMICAL AND EASIEST PRODUCT TO PREPARE. TODAY, THE ART OF BAKING LOAVES, FLAT CAKES AND BAGUETTES, PREVIOUSLY AVAILABLE TO ANYONE, AND THEN LOST IN THE ERA OF THE II INDUSTRIAL REVOLUTION, IS GRADUALLY RETURNING. THE QUESTION IS HOW TO DO IT RIGHT

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Back in the second millennium BC Humanity has guessed to grind grains, add water, knead the dough and bake it on fire. The first commercial bread, or rather flat cakes, which were called "ta" appeared in the XII century BC. in ancient Egypt. Roman legions conquered half of the world, because they did not need carts and field kitchens. As Tacitus wrote, each soldier himself baked bread from hand-milled wheat grains on a fire, covering the dough with a bronze bowl and sprinkling coals on top. In the Middle Ages and in modern history, besieged cities did not surrender to the enemy for years, as long as it was possible to bake bread.

The development of the baker's profession is significantly expanding nowadays. The point is not only in the self-isolation mode that has affected everyone, but also in the quality of manufacture, which has been spoiled by the industry. In order to reduce the cost of products, bakeries reduce its quality, change the recipe and composition of ingredients. Private bakeries take the advantage of the situation, however their products are far from cheap and not always "correct". For example, you can drive around half of Moscow and not find a real sieve, baguette, or pizza with a "welt" thinner than an inch. Considering that now my colleagues have both the time and the desire to test their strengths as a baker, I will try to share my experience, as well as collect and analyze all available information, opinions, and recipes.

FLOUR

Manufacturing is a factor that arouses suspicion not only when buying ready-made bread, but also its main ingredients, especially flour. As with coffee beans, here – it's better to grind yourself. But grinding flour is not as easy as coffee, so it remains to buy, but from the right manufacturers, such as, "Frantsuzskaya shtuchka", "Ryazanochka", "Pudov", "Oskolskaya", for example.

Experimentally, when baking white bread, I got the best result on the "Extra" variety from "Frantsuzskaya shtuchka". Flour is very finely ground, interacts well with yeast, and, most importantly, the most delicious bread is obtained from it if the recipe is followed.

But, you must admit, rye bread will still be tastier with borscht. If you decide to start baking bread at home, then, de facto, you have already crossed the line of choosing quality instead of reducing the time for cooking. It should be noted here that in fact it will not take much time to always have bread at home. It takes me less than 15 minutes to prepare the dough and three hours to prepare it in a bread machine

YEAST VS SOURDOUGH

It is believed that the modern dry yeast Sacchoromyces cerevisiae was invented in the 1930s by Nazi scientists to undermine the "mysterious Russian soul". The legend is controversial, but not entirely unfounded: "soluble" yeast does not seem to worsen the quality and taste of bread (some even believe that it improves it), but definitely makes the product more harmful to the body. Metabolic disorders and excess weight – this will not happen if instead of such easy-to-use dry yeast, you use classic bread sourdough.

A classic sourdough recipe used by the ancient Egyptians: leave a small part of the dough for a day or two in a dark and humid place. The natural fermentation process will lead to the appearance of a brownish-greenish substance, similar in texture to bread, not hard, but soft-mushy. This is the very leaven that can be added to new batches. At different times, beer or grape mash was used to produce alternative compositions, but real bakers prefer the classic "mold-mushroom» recipe.

Sourdough is a symbiosis of lactic acid bacteria (LAB) and wild yeast. The dough must be sour for rye bread to have a porous crumb, and not a solid sticky mass. This is due to the peculiarities of the enzymes in rye flour, which destroy the structure of the dough in the absence of acid. The necessary acid is produced by LAB, and wild yeast (unlike cultivated ones) can coexist with them for a long time.

What we perceive as the taste of bread is largely created by the work of tiny unicellular organisms, cultural and wild yeast. Sourdough bread tastes a lot different from yeast bread. And, if yeast bread always has the same taste, then sourdough bread has a new one every time.

HUMANITY LEARNED TO BAKE BREAD IN THE SECOND MILLENNIUM BC

As soon as I got a bread machine, I began to read literature about making bread. I decided to try all possible options, using artificial yeast and sourdough. According to the recipe, the preparation of sourdough can be either white or rye flour. The recipe turned out to be very simple: every day at room temperature, add 25 g of flour and 25 g of water to a liter jar, closed with cling film with holes for air on top.

The sourdough must be stirred daily until the volume of the vessel is filled with it. After five days, the leaven is ready and can be used. The leaven that is prepared for the first time is not very "strong", and therefore, in addition to it, a little artificial yeast should be added to the dough to shorten the raising time. Leaven in the rye flour is very simple and can be stored, while maintaining activity in the vegetable section of the fridge. Ripe leaven will "raise" the bread in two to three hours. It becomes so (ripe) in a few months. The more often you refresh the sourdough when baking, the faster it will become "strong". Sourdough on white flour is more complicated. It "lives" only five days, then loses its "power". It has been noticed that the leaven obtained in different rooms gives a different taste to the bread.

SUGAR

Ingredients other than flour, water, salt, and sourdough (yeast) are not used for making a classic French baguette. However, it has been tested: a spoon of sugar added to the dough can turn an unleavened French baguette into a "city loaf" invented in Leningrad with a unique, slightly salty taste.

Sugar in a batch of bread can create other "miracles". Interacting with sugar, yeast emits carbon dioxide and increase the volume of the dough. It also produces a small amount of alcohol, which decomposes or evaporates during baking. However, yeast will not be able to process all the sugar in a short time of baking, and therefore the sweet taste of the bread will be felt.

CEREALS

It is believed that a profitable alternative to bread made from wheat or rye flour is the so-called "cereal" bread. Those promoting this trend, apparently, did not study botany well, since both rye and wheat are also part of the cereal family. Bread made of oats or bran (grain shell) may differ in taste and color, but physically cannot be "healthier", since it consists of the same microelements.

There are many new varieties of flour nowadays: whole grain, buckwheat, flaxseed. Their addition to the dough gives a very big "maneuver" in preparation of varieties of bread.

WATER

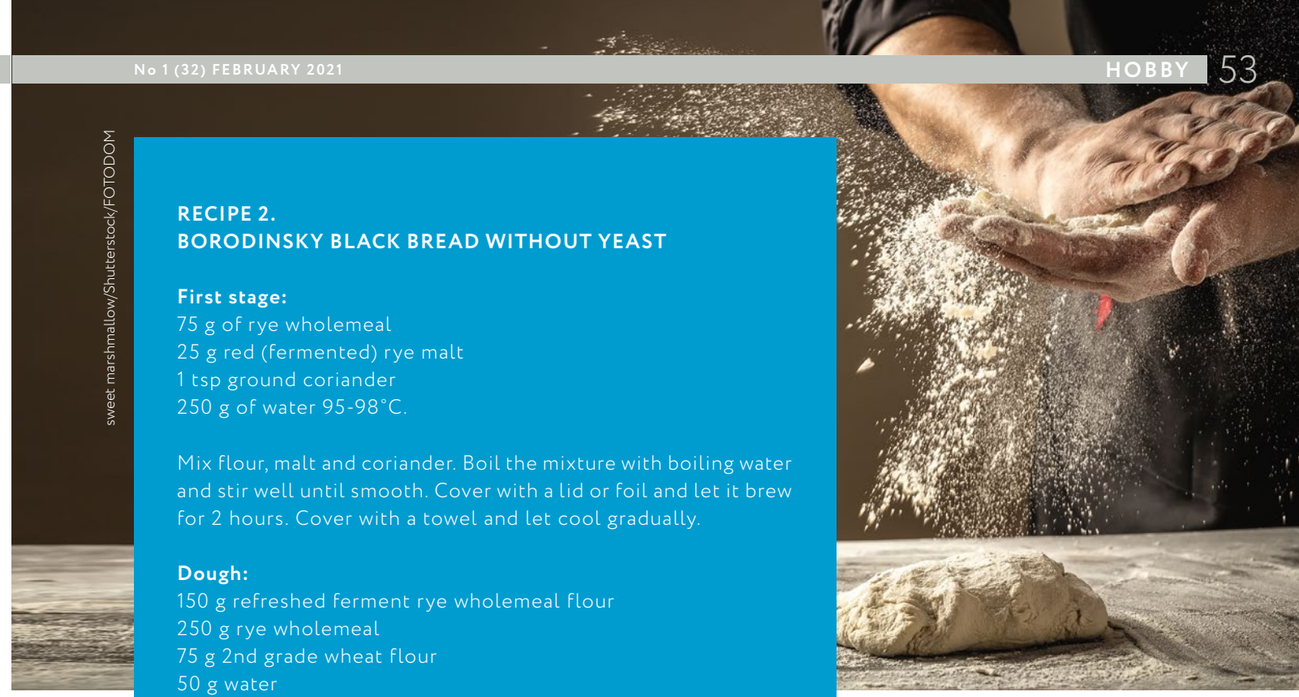
As in a fairy tale water, is "living" and "dead". What you add to the dough is likely to get. I have already written about water in an article about coffee, I will only note that to make bread, the water must be warm, about 36°C.

RECIPE 1.
WHITE BREAD

2 large spoons of sugar (25 g)
1 small spoon of dry yeast (2.5 g)
1/2 spoon salt (3 g)
3.5 measuring cups of extra white flour (400 g)
1.5 spoons of warm water (approx. 36°C, 375-400 ml)
2 large spoons of vegetable oil

First, add dry ingredients (sugar, yeast and salt) in order, mix, add flour. Mix, make a hole and add one glass of water. Pour oil into the water. Stir with a spoon, add water. Stir until smooth and send to a bread maker. Indicate the weight – 1 kg, and a large crust. Bake for 3 hours according to the "white bread» program.

After an hour of operation of the bread maker, you can add sunflower seeds or any seed mixture to change the taste. You can also add warm milk instead of water, the bread will be even more fluffy. This trick can be applied by using partial addition of whole grain flour (1/3 of the total).



sweet marshmallow/Shutterstock/FOTODOM

RECIPE 2.
BORODINSKY BLACK BREAD WITHOUT YEAST

First stage:
75 g of rye wholemeal
25 g red (fermented) rye malt
1 tsp ground coriander
250 g of water 95-98°C.

Mix flour, malt and coriander. Boil the mixture with boiling water and stir well until smooth. Cover with a lid or foil and let it brew for 2 hours. Cover with a towel and let cool gradually.

Dough:
150 g refreshed ferment rye wholemeal flour
250 g rye wholemeal
75 g 2nd grade wheat flour
50 g water
30 g sugar
20 g of molasses or honey
6 g salt
2 g whole coriander kernels

Dissolve molasses in water, dissolve sugar and salt. Pour water into a bowl with flour, put the sourdough and the product obtained in the first stage there. Knead the dough for 8-10 minutes – first with a silicone spatula or spoon, then manually, until smooth. Place the dough in a clean oiled bowl and roll into a ball. Tighten the bowl with plastic wrap and leave to ferment for 1-1.5 hours at 30°C. Shift the fermented dough to a greased form and tamp it well. Preheat the oven to a temperature of 35-40°C and place the dish with the dough there for 1.5-2 hours. Moisten the top of the dough with warm water before baking, then sprinkle with coriander seeds (anise, nigella), lightly pressing them into the dough.

Baking:
At 220°C for 10-15 minutes with steam, then at 200°C until tender, 55-60 minutes in total.

Let the bread cool for a few minutes in the form, then remove it and cool on the wire rack. When it is completely cool, wrap it in a towel and leave to ripen for 10-12 hours.

DOUGH

You will not be able to bake good bread for a long enough time even with the most exact observance of the ratio of ingredients and cooking times. The problem is the same as that of novice bricklayers: you need to master the required consistency of the solution, the amount of water in it, at the skill level. When this is mastered, the further process will not be difficult. Yes, sometimes I managed to bake a "brick" instead of bread, which was no good, everyone goes through it.

"FURNACE"

When choosing a bread maker, you should pay attention to the fact that it can bake products weighing up to a kilogram. A removable "bucket" is used for smaller volumes. It is important that there is a sound signal and a dough kneading function, which is useful for making pizza or tortillas. The weak point of the bread machine is the bearing mounted on the "bucket" flywheel. You can also use a modern electric oven for making bread. This 3D blower cabinet makes amazing baked goods.

AUTHOR
EKATERINA KRAPIVKO

ANOTHER LIFE, OR LET'S GET ACQUAINTED

WE ARE ACCUSTOMED TO PERCEIVING OUR COLLEAGUES AT CPC, FIRST OF ALL, AS PROFESSIONALS IN THEIR FIELD AND OFTEN DO NOT EVEN KNOW ABOUT THEIR CREATIVE POTENTIAL. WE USUALLY LEARN BY CHANCE ABOUT WHAT TALENTED SINGERS, DANCERS, POETS AND ARTISTS WORK WITH US SIDE BY SIDE. THESE DISCOVERIES ARE ALWAYS PLEASING

"In the heap of routine life events, sometimes you start to lose yourself, your desires and goals fade into the background, and there comes a moment when you want to break out of your comfort zone, prove to yourself the existence of bright colors, unreal events and sparkling seconds that breathe new life into you!" this is how the Leader of Electronic Document Management System Service Lydia Ismagilova, a bright member of the improvised group "Boogie", explained her performance in the show as part of the New Year's corporate party-2019 in the "Disco" style.

Another 13 employees of the CPC Moscow office were able to break out of the comfort zone together with Lydia. And, despite the different motives, previous creative experience and the stage image selected by a professional team, all participants agreed that this concert will remain in memory forever. The new experience made it possible to find out a lot of useful information about yourself, about your colleagues, get a lot of positive emotions, change your thinking in a positive way and broaden your horizons.

Indeed, what do we know about our colleagues, besides than that they are professionals in their field? We are accustomed to seeing each other only in a working manner, as representatives of a particular unit, with whom we meet as part of our work functions. But sometimes it is worth looking beyond all these "frames" and "functions" to see that talented creative people, with their interests, dreams, hobbies, people that are able to challenge themselves and their "stage fright" are working side by side with you.

PARATROOPER BEFORE JUMPING

The Head of the Information Systems Support Service Kirill Alekseev often performed on stage, took part in theatrical performances, played the guitar during his school years. After leaving school there was no opportunity to perform, but he really wanted to. Kirill compared the fear of going on stage at the CPC New Year's show to the feeling that a person experiences before a parachute jump – adrenaline was off the scale. But from the very first seconds of the performance, the support and sincere interest of colleagues helped to cope with anxiety and get a charge of positive energy.

An equally exciting event was the performance for a Document Control Specialist and member of the «Boogie» group Marina Shkad – it was her first experience of working on stage.

"It was always difficult for me to recite at school, even if I knew the subject perfectly. I have never participated in school clubs, because I am a shy person by nature, " says Marina. "But after seeing the previous performance of our colleagues, I was so impressed, felt pride and joy from understanding how creative people have been working next to me all these years. It gave me the strength to overcome my fear and try myself in a new role."

Another bright participant of the "Boogie" performance, Administrative Assistant of the Transportation Division Elena Piotrovskaya, during her school years, on the contrary, was an active participant in all events: she played in KVN, danced in a group, participated in "New Year's trees" for elementary grades. And she missed those emotions very much. Therefore, she immediately agreed to take part in the show. As a result, viewers were able to see a brilliant in every sense female trio!

WHEN WINGS GROW

"I am a supporter of gaining new experience and development," says Ekaterina Salimova, Senior Analyst, Economic forecasting and Analysis and participant of the "Hang Glider" performance. "There was a desire to live a little new life, but it turned out to be the whole Universe, which captured and covered with a storm of emotions!"

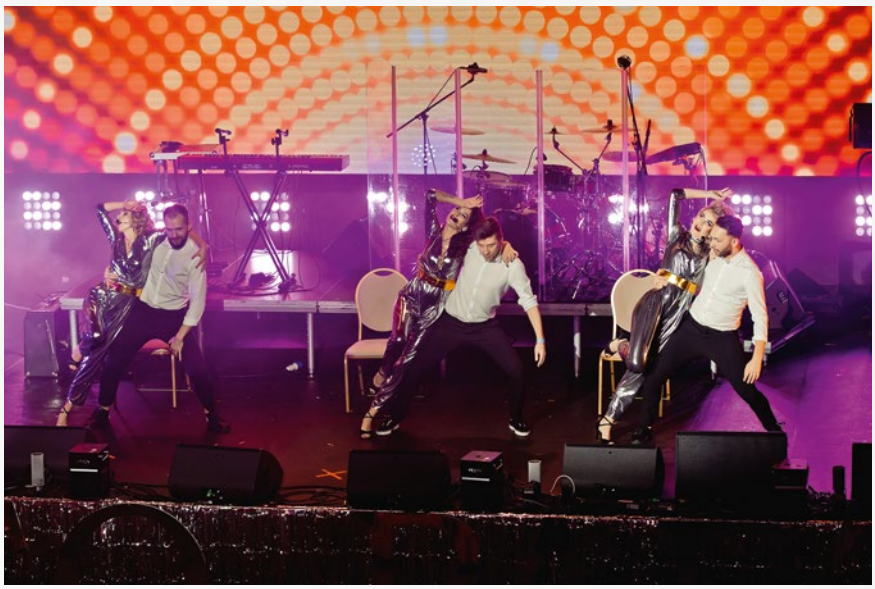
As it turned out, Ekaterina had been engaged in pop and sports dances for many years and literally "breathed" the stage.

"My advice to everyone – go for it!" says Ekaterina. "Firstly, this is an opportunity to look at yourself from the other side and try your hand, to reveal your abilities. Secondly, the sense of the team organizes well, and thirdly, a lot of communication and positive emotions are provided."

NEW YEAR'S CONCERT WITH PARTICIPATION OF CPC EMPLOYEES WILL REMAIN IN MEMORY FOREVER

Elena Evstifeeva, the second participant of the "Hang glider" performance, and a Specialist, Data Processig and Electronic Document Control in ordinary life, in childhood and adolescence she performed on stage with a dance group. There was even the experience of participating in the 1998 Youth Olympic Games. At the same time, she dreamed of singing on stage, but was always afraid, despite the naturally strong voice that excited the director of the project. Thanks to CPC, the dream finally came true. The result exceeded all her expectations, but most of all, her colleagues have surprised — they went to the stage in T-shirts with portraits of all the participants in the "Hang Glider". Such support is worth a lot.

The participants of the bright performance "Potpourri" based on their favorite songs of the 80s turned out to be creative people. Tatiana Filasova, Administrative Assistant of the Corporate Security Division, as a child, she read poetry to veterans of the Great Patriotic War in the Theater of the Russian Army. Tatyana Mamina, Senior Attorney, Corporate Law Group, studied at a music school, participated in school concerts. Svetlana Milovanova, Receptionist, became the main driving factor for many — her performance in the pilot project in 2017 made such a vivid impression on her colleagues that many of them wanted to repeat her experience.



"It is a different life," Svetlana shares her emotions. "This is an opportunity to look at the show from the other side, full of something magical, hidden, inaccessible to the audience in the hall. This is a huge shake-up for the body, because you experience a terrible excitement in front of the stage, when your hands get cold, the earth leaves from under your feet ... But the desire to give a grateful viewer a little positive emotions gives you wings!"

BE READY — ALWAYS READY!

A unique discovery of the project was the Administrative Assistant, General Business Department Olga Vetokhina, who participated in the performances of her colleagues on equal terms with professional dancers. Olya was remembered for her activity and willingness to participate wherever the director's intention requires. At the same time, her energy found a positive output not only on stage, but also in the dressing room, she tried to help her colleagues in preparing the stage image. Valuable photos of the backstage "kitchen" remained in memory due to her reporter talent. It turned out that Olga took an active part in the cultural life of the university during her student years: she played in KVN, participated in the "Student Spring", sewed costumes, wrote scripts for theatrical performances as part of "English evenings", including based on Shakespeare — in the language original.

If some participants appeared on the stage, wanting to realize their hobbies and childhood dreams, others — to overcome their fears and get out of their comfort zone, then the Lead Specialist, Schedule and Cost Control Maxim Desyatnik chose an unexpected path to fame — colleagues played "you wouldn't dare" with him. So he decided to prove that he can do it. And he proved it. The image of the singing captain of the plane in the "Hang-glider" performance turned out to be bright and memorable. It would never have occurred to anyone that this imposing artist is on stage for the first time in his life. But Maxim, as Jim Carrey's hero in the "Yes Man" movie, believes that you need to agree to any reasonable proposal.

"In any case, this is an additional experience and emotions," explains Maxim. "Last year I tried to climb Elbrus. I didn't reach 400 meters to get to the top, I stopped at the saddle of the mountain. Now I'm on stage. I am sure there will be something more interesting next year."

That's how they are, our engineers, administrative assistants, document management specialists, lawyers, financiers — bright, talented, motivated and courageous. And how much more we do not know about each other. Let's get acquainted!

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