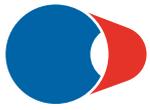
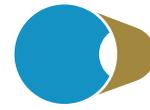


Panorama

CPC



JSC Caspian
Pipeline
Consortium-R



JSC Caspian
Pipeline
Consortium-K

Caspian Pipeline Consortium Corporate Edition

№ 2 (17) July 2017



***In Focus:
Security***

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“Each person is responsible to all and for all.”

Fyodor Dostoyevsky



Consortium of Success

DEAR COLLEAGUES AND FRIENDS,
EXACTLY 25 YEARS SEPARATE US FROM THE MOMENT WHEN IN THE SUMMER OF 1992 THE FIRST SIGNATURES WERE PUT TO THE DOCUMENTS ON THE ESTABLISHMENT OF THE CASPIAN PIPELINE CONSORTIUM.

Now we can say with all certainty that all these years the CPC has been developing dynamically, reaching new and new milestones.

The Expansion Project has entered the final straight. We have only three PSs left to put into operation, and by the end of 2017 we will have 15 oil pumping stations moving crude oil through the Tengiz-Novorossiysk pipeline system, which will increase our oil transportation capacity via the pipeline to 67 million tons per year. This surplus pipeline capacity that was timely created by the Consortium will certainly contribute to the development of oil industry both in Russia and Kazakhstan, help strengthen global energy security, and reinforce Russia's image as a reliable partner for the transit of hydrocarbons to world markets.

Today, the capacity of the CPC pipeline system has already reached 54 million tons of oil per year, with the monthly transshipment volumes at the Marine Terminal amounting to almost 5 million tons. This has made the Consortium's crude oil port one of the largest not only in the Black Sea and Mediterranean regions, but also in the world. According to the received nominations from oil producers, the 2017 oil movement plan amounts to 65 million tons. In particular, Kazakhstan producers will account for 54 million tons, including 11 million tons at Kashagan. Russian producers will supply 11 million tons, including 5.4 million tons from the Filanovsky and Korchagin fields.

The growth in the volumes of oil moved through the CPC pipeline has a positive effect on both the financial position of the Consortium and the pace of debt repayment to the Shareholders. According to preliminary estimates, by the end of 2017 the Consortium's revenues will be about \$2 billion. On March 31, the CPC paid back \$210 million of the Consortium's debt to the Shareholders for the first quarter of 2017. In 2015, we allocated for this purpose \$1.5 billion, and in 2016 another \$1.27 billion. At the beginning of 2017, the remaining debt was about \$4.49 billion. We expect that the attainment of full capacity will enable the CPC to increase the pace of debt repayment and ensure full repayment by 2020, and will also make it possible to start paying dividends to the Shareholders.

The launch of new facilities and the progressive development of the CPC's pipeline capacity enable the Consortium not only to create additional jobs for the local population and to increase tax revenues to regional budgets, but also to consistently implement large social programs in the regions where it is present. From its very inception, the Consortium has been implementing large-scale projects aimed at the development of healthcare, education, culture, sports and other spheres both in Russia and in Kazakhstan. Thus, the total amount of funds allocated under the Expansion Project was more than 1.5 billion rubles in Russia, and over 3.7 billion tenge in Kazakhstan.

During the years in has been engaged in charitable activities, the Consortium has invested in the aggregate more than 3 billion rubles in the development of regions in Russia and about 8 billion tenge in Kazakhstan. In 2017, the Consortium is planning to allocate a total of about \$10 million for charitable purposes in Russia and Kazakhstan.

The international status of our Company allows us to study and adopt the best experience of the Consortium's partners around the world, use modern technologies and equipment, and apply international standards for management, design, construction and operation of oil transport facilities. We are proud of our excellent results in occupational safety, health, and environmental protection.

Today the CTC provides not only the shortest and most economically viable, but also the most reliable route for transporting Caspian oil to world markets. At the same time, working as a single team, we continue to confidently move forward, and the results that we have achieved allow us to look to the future with optimism. ■

by Nikolay Gorban,
CPC General Director



“The permission for the start is granted!..”

THIS EVENT INAUGURATED THE COMPLETE IMPLEMENTATION OF THE CPC EXPANSION PROJECT IN THE ASTRAKHAN REGION.

On May 12, 2017, the CPC General Director Nikolay Gorban, the Governor of Astrakhan Region Alexander Zhilkin, as well as the Consortium's shareholders, solemnly started operation of two new oil pumping stations built under the Expansion Project: A-PS-4A and A-PS-5A. Now, it's all history.

HOW IT ALL HAPPENED

The numerous participants and guests of the celebration event arrived in the morning at the A-PS-5A oil pumping station. It was

a place where a symbolic starting gate valve was installed. Among the guests, there were representatives of the regional administration, the management of the CPC and its shareholders, the participants of the expansion project, representatives of supervisory bodies, and numerous journalists. The participants were in great mood. The flags were festively fluttering in the air, the industrial buildings painted in blue and white tones were pleasing to the eye, and the silver colored pipes of the PS shined brightly under the spring sun.

Before putting facilities into operation, the managers and specialists of the CPC decided to conduct for the guests a tour. The staff of the station proudly showed to the participants of the ceremony their high-tech facilities built with the use of the latest technologies and global advances. At every new PS, there were constructed rigid frame modular buildings, laid more than 220 km of power and control cables, and installed almost 3.7 thousand units of mechano-technological, power electric, and control & automation equipment.

The guests toured the mainline pumping station, the fire station, the surge relief platform and other secondary objects. All equipment has successfully passed the individual and integrated reliability testing, with the mainline pump units, in compliance with the regulatory documents, has been operating under the maximum workload for 72 hours.

THE APOGEE OF CELEBRATION

And now comes the most solemn moment of the ceremony. Sitting in the operator’s office, the CPC General Director Nikolai Gorban receives reports on the stations readiness for the beginning of operation. The first report comes through the video communication channel from the head of A-PS-4A Nikolay Ignatyev. Then a similar report comes from the A-PS-5A. The big screen switches to Novorossiysk, and we can hear report from the chief dispatcher of the Main Control Center Igor Mishchenko.

“Dear Mr. Gorban! Dear colleagues and guests! The Main Control Center, the personnel of the dispatching service, and the control



In the control room. Receiving reports on the pre-start-up readiness of the facilities

and communication system are ready for the start of operation of A-PS-4A and A-PS-5A! The main and secondary equipment has passed the complete set of tests, all parameters of the PS operation are displayed on the SCADA screens and monitored continuously from the Main and local control centers. I ask your permission to start the operation of the oil pumping stations”.

“The permission for the start is granted!” commands the General Director.

The process is joined by the linear part dispatcher of the Main Control Center Igor Sidorov. We can hear him on the air:

“To the heads of the shifts of A-PS-4A and A-PS-5A! Get the main units ready for the start!”

“A-PS-4A. Copy that!”

“A-PS-5A. Copy that!”

The head of the A-PS-5A shift takes a walkie-talkie: »



The tour of A-PS-5A filled the guests with positive emotions



Many participants of the Expansion Project were distinguished with well-deserved awards

“Operational staff, attention! I received a command to prepare the pumps for the start. Everybody take their places. Report on the readiness of the lubrication and ventilation systems!”

In about half an hour later after checking the parameters and starting the systems, a command was received to start the A-PS-4A and A-PS-5A mainline pumping units. Both stations were put into operation.

FOR THE COMMON CAUSE

“The completion of construction of the oil pumping stations is a very important professional event for a lot of participants of this

construction and for the entire CPC team. This is the result of a unified effort for the common cause of the specialists and managers of the Expansion Project, the operational services of the CPC, and the employees of the contractors: Transneftstroy and Velesstroy, as well as representatives of the supervisory bodies” said in his speech the General Director of the Consortium Nikolay Gorban.

He thanked the builders for the construction of the facilities with the highest level of industrial and environmental safety, as well as the labor safety standards.

“By accepting the new PSs into service from the builders, we guarantee

our shareholders a high level of quality production while operating these facilities,” emphasized Nikolay Gorban.

At the end of his speech, the General Director expressed his gratitude to the administration of the Astrakhan Region in general and personally thanked the head of the region Alexander Zhilkin, and the Deputy Chairman of the regional government, the Minister of Industry, Transportation and Natural Resources Radik Kharisov for their invaluable support offered during the construction of the stations and for the resolution of pressing issues. It is worth reminding that for the prompt and effective solution of all emerging issues, a corporate team was created,



The celebration was beautified by local talents



Nikolay Gorban: “Excellent job!”



Nikolay Gorban and Alexander Zhilkin: media scrum



Andrew McGrahan: "We say 'Thank you' to the management of the CPC for this success!"

consisting of the members of administration of the Astrakhan Region, the CPC, the Giprovostokneft OJSC, the Astrakhan regional offices of Rosreestr and Rosimushchestvo, the municipal administrations and the supervisory bodies.

The Governor of the Astrakhan Region, Mr. Alexander Zhilkin, underlined that the new facilities of the CPC will help to strengthen and develop the cooperation between the CPC and the region, and to improve its investment potential, supplement the budget and address the unemployment issues.

GROWTH STEPS

The speech delivered by the Chairman of CPC-R Board of Directors, the President of Chevron Neftgaz Inc., Mr. Andrew McGrahan, was no less emotional.

"The commissioning of A-PS-4A and A-PS-5A is a truly remarkable event. The CPC pipeline is an important part of the global pipeline system for oil transportation, and today we have taken another big step towards the completion of the Expansion Project," he stressed.

The beginning of operation of A-PS-4A and A-PS-5A provided an additional capacity increase for the Caspian section of the CPC pipeline (running from PS Atyrau to PS Komsomolskaya) up to 10 million tons of oil per year.

After commissioning of all its 15 oil pumping stations this year, the CPC will reach its planned capacity of 67 million tons of oil per year. This timely created surplus capacity will contribute to the Consortium's further development of the Caspian oil fields both in Russia and in Kazakhstan. ■

by Pavel Kretov

The participants of the historical event



Energy Costs: The Trend Is Reductions

IN TODAY'S WORLD, ENERGY SAVING AND, AS THE CONSEQUENCE, THE REQUIREMENTS TO INCREASE ENERGY EFFICIENCY OF OPERATIONS BECAME THE STRATEGIC OBJECTIVES OF TECHNOLOGICAL DEVELOPMENT OF ANY COMPANY, INCLUDING THE CPC THAT IS WORKING ON SIMILAR PROJECTS.



Elena Glybina

GOING FOR THE WHOLESALE MARKET

One of the key elements of energy efficiency program being developed at CPC is the minimization of expenses on the purchase of electricity and conservation of energy resources. The first step towards this goal was the development and implementation of an automated measuring and information system for electric power fiscal accounting (AIIS KUE) introduced at the sites of CPC-R and the Consortium's entering the wholesale electricity market of the Russian Federation.

"In 2017, specialists of CPC-R developed and implemented specialized software systems like an automated planning system (ASP), designed for gathering, processing, and analyzing the planned and actual volumes of consumption of electricity; an automated data collection system (ASSD), which allows us to

integrate data from the SCADA and ASP on the consumption of electricity by the CPC facilities, as well as to obtain the necessary parameters of the pipeline operation," says the Chief Power Engineer of CPC Elena Glybina.

BENEFITS OF PLANNING

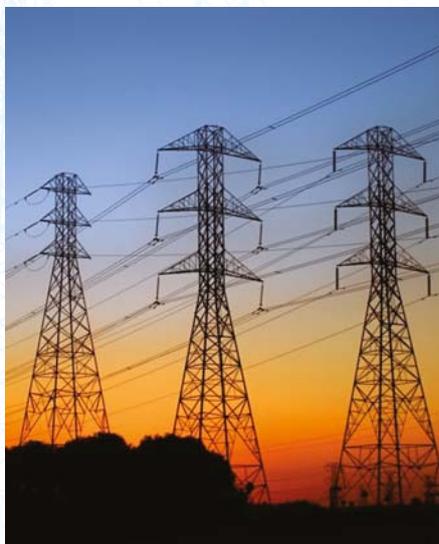
From the beginning of 2017, the CPC-R, JSC, started to acquire electricity on the wholesale market through an independent energy sales company. The results of the first quarter of 2017 indicated that the economic effect of these measures was 27 million rubles, or 7 % of the total cost of electricity. And it is not the limit yet. As the specialists of the Consortium note, the maximal economic effect of entering the wholesale market depends on the accuracy of electricity

consumption planning. For example, in the first quarter of 2017, there was a difference between the actual and planned amount of electricity consumed, which led to the increase in expenses on electricity by 11.5 million rubles, or 4 % of the total expenses on the purchase of electricity and capacity.

Therefore, to achieve the projected electricity consumption level, the CPC specialists have designed and now are gradually implementing a certain set of measures. The latter provide for the monitoring of information on the main-stream and integrated energy efficiency indicators and timely exchange of information between the Commercial Department, the Technology Calculation Group and the Dispatching Service on the actual and planned modes of oil transportation.

THE GOAL IS TO MINIMIZE EXPENSES

"Another measures for the minimization of expenses by CPC-R on the purchase of electricity include the introduction of an automated system for the integrated accounting of energy resources to optimize the planning for electricity and natural gas. Before accomplishing the abovementioned measure, there will be an implementation of a software package for checking the accuracy of billing by the energy suppliers and mutual settlements in the wholesale electricity market," explains Elena Glybina.



Of course, similar measures for improving the energy efficiency are being developed for the facilities of the CPC-K. To minimize the cost of the purchase of electricity, there will be a change for them in the process of buying electricity. It will be implemented by entering the wholesale electricity market of the Republic of Kazakhstan. Here we are talking about the facilities that meet the requirements of the wholesale market. As for the rest of the facilities, they will be serviced by a different energy supply organization that could offer the most favorable electricity tariff.

In line with the energy consumption minimization process, in the coming years there will be an upgrade of the AIIS KUE system at the sites of CPC-K to provide data transfer to the server installed at the Marine Terminal of the Consortium. Besides that, there will be implementation of an automated system for integrated accounting of energy resources, necessary for the optimization of the planning process.

ACCORDING TO INTERNATIONAL STANDARDS

Transportation of oil by the CPC facilities requires not only the use of electricity, but also a natural gas. For that reason, the Consortium



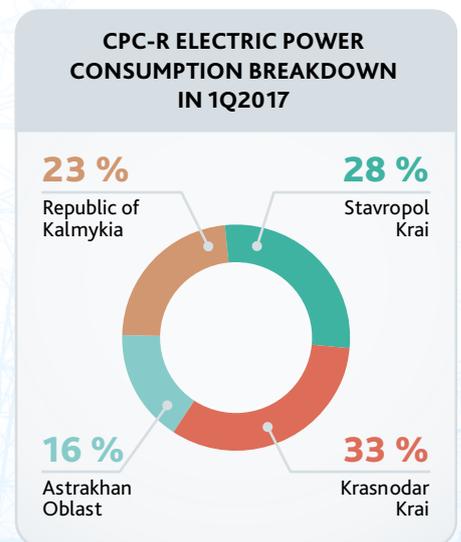
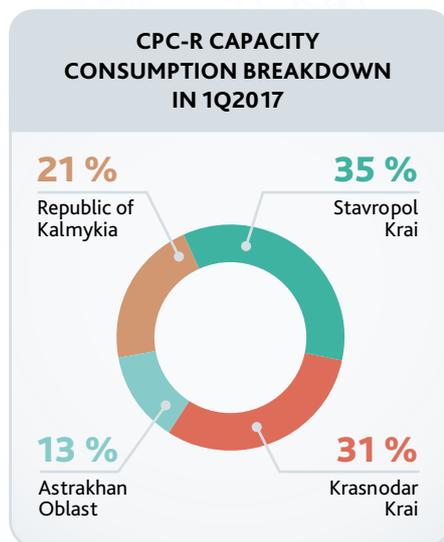
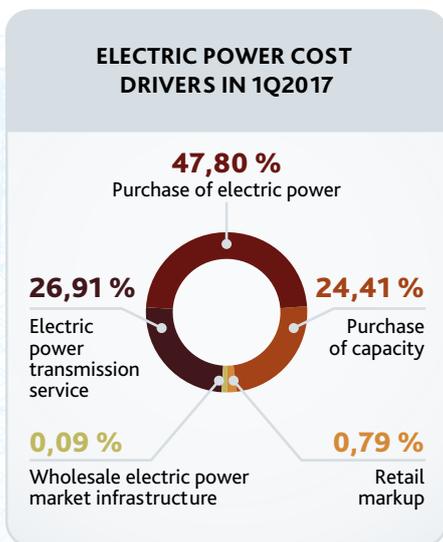
specialists have been developing measures to reduce the costs of its purchase on the territory of the Russian Federation and the Republic of Kazakhstan.

“In 2017, the Consortium will conduct an energy survey of the CPC facilities and will develop an Energy Efficiency Program of the CPC, for 2018–2022. It will be done to determine the priority areas for the increase in energy efficiency. In 2018, the CPC is planning to introduce an energy management system in accordance with the requirements of the international standard ISO 50001:2011,” summarizes Elena Glybina.

It is also worth noting that the Consortium’s success in the field of energy saving and efficiency has already been highly appreciated by

international experts and colleagues from other countries. For example, the International Association of Oil Transporters (IAOT), which has the CPC as an observer, awarded the Consortium the third place for energy efficiency among the IAOT member companies in 2016. Within the IAOT, a permanent expert group developed and implemented a methodology for assessing the energy efficiency of member companies (the Method for Energy Efficiency Benchmarking), which allows not only to assess how efficiently the energy is used by a company, but also to give valuable recommendations on improving energy efficiency in its activities, as well as familiarize oneself with the implementation of the proposed recommendations in other companies. ■

by Pavel Kretov





Steersmen of Oil Flow

AT THE END OF 2016, THE OPERATIONS CONTROL CENTER (OCC) OF THE CPC PIPELINE SYSTEM AT NOVOROSIYSK WAS OPENED AFTER RECONSTRUCTION. WHAT NEW OPPORTUNITIES ARE OFFERED TO THE OCC DISPATCHERS? WHAT CHANGES OCCUR IN THEIR WORKING CONDITIONS? THE SPECIALISTS THEMSELVES TOLD "CPC PANORAMA" ABOUT IT ALL.

RESTRICTED AREA

There is a beep of the electromagnetic lock buzzer and we cross the threshold of the OCC where Chief Dispatcher Igor Miscshenko



Igor Miscshenko

starts an excursion. The door admitting to this room is always locked, authorized personnel only: this is the place from which they control all the pumps, valves and other process equipment along the whole length of the oil pipeline from Tengiz to Novorossiysk.

"The continuous process of the crude transportation and transshipment requires the total continuous attention concentration of dispatchers, therefore nothing should draw them away from their work," notes Miscshenko.

There are two levels in the OCC room. On the lower level, there is a conference room and a classroom equipped with a multimedia board. Here the training and advance training is provided on a regular basis not

only to the OCC dispatchers, but also to shift supervisors of all oil pump stations of the Tengiz – Novorossiysk pipeline both in Russia and Kazakhstan. For example, today in the classroom the shift supervisors of Kazakhstan A-PS-3A are taking examinations following the two-week training.

And we are coming upstairs, directly to the Dispatcher Room. There are three operating consoles here. One is for the dispatcher who is responsible for oil transportation from Tengiz to PS Komsomolskaya, the area of responsibility of the second one is from PS Komsomolskaya to the Marine Terminal Tank Farm. The third tanker filling dispatcher controls the Marine Terminal Tank Farm and carries out the tanker loading.



Yury Andrusyak

There is the fourth console as well: it is used for the situation analysis and evaluation.

24 HOURS A DAY

Everything is done for the personnel comfort. Each workplace is equipped with individual lighting, ventilation and air conditioning systems, as well as with a shutter remote control panel. The monitors can be raised up for working in the upright position in case if a dispatcher is tired of sitting or decided to change a working pose.

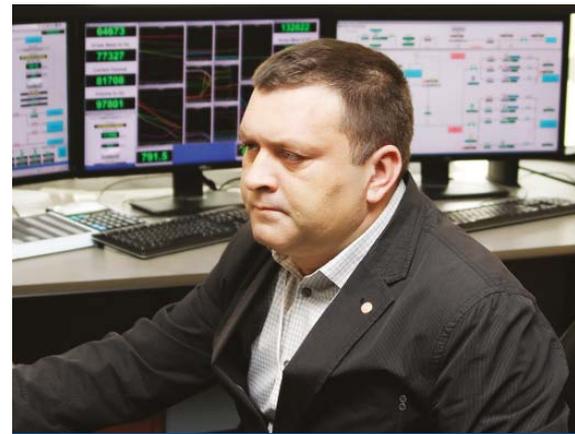
“The whole ergonomics of dispatcher workplaces shows a great

improvement. We have modern high-resolution screens, it became much more convenient,” comments tanker filling dispatcher Vyacheslav Tsys, adding that there became much more work: the oil pipeline capacity has increased, as well as the number of shipped tankers.

The shift is 12 hours. Five dispatchers are assigned to each console. The schedule is day-day, night-night, then there are four days of rest.

Just a while ago the whole line section of the Consortium was controlled by one OCC Dispatcher. Now, when the number of oil pipeline pump stations increased from five to fifteen, there are now two dispatchers responsible for the line section. It resulted in the employment of five new dispatchers. The highly trained specialists were searched throughout the country. For example, Yury Andrusyak, who was interviewed by “CPC Panorama” correspondents, came to Novorossiysk from the Far East.

Notwithstanding his background experience, for the first year in the OCC Yury has worked as a trainee of the lead dispatcher. Then, after the assessment of his knowledge and acquired skills, he could proceed to unsupervised work.



Vyacheslav Tsys

“Previously I worked on the “Transneft” oil pipeline, Eastern Siberia – Pacific Ocean pipeline system. Here and there the work is similar, but there are certain nuances. At “Transneft”, a dispatcher is more confined to the selected process conditions, CPC adheres to the more commercial approach: the OCC is facing the task of the maximum possible efficiency. Yes, the areas of dispatchers’ responsibility are divided, but nevertheless, we monitor the processes at adjacent sites because our stations operate on pump to pump basis. It requires coordinated efforts, therefore, we act as a single team. ▶





Alexander Krinitsyn

NEW SCADA

According to control system team leader Alexander Krinitsyn, after the OCC modernization, a new SCADA system was put into the simultaneous operation.

“The matter is that the first system, operating since 2001, did not meet the performance characteristics of the pipeline system to the full extent,” noted he. “A lot of new facilities were added, both in line section and at the Marine Terminal and the Tank Farm. It became

necessary to develop additional modes of control of the process equipment and additional systems of optimization of the CPC pipeline system operation, such as: systems of optimization of the process conditions, an application for load management, a system of lot tracking and oil storage, an alarm management system, etc. All of this is designed for the improvement of automation in decision making by the shift dispatch personnel of the Operations Control Center.”

“What is it – the alarm management system?” – we asked.

“It allows the dispatchers and the SCADA users to make requests and to process the information about condition of the process equipment and the alarm warning system,” explained Alexander. “There is also an application for the system of electrical optimization of the pumping equipment operation which allows the dispatchers to achieve target values of oil pumping depending on the entered parameters of accessibility of the pumping units and other process equipment.”

As specialists told us, the launch of the new SCADA system is carried out in several steps. At the first stage, in Canada, they performed FATs with the participation of control system engineers inspecting the software code, and representatives of the dispatcher service. The tasks of the latter included the inspection of the system displays

and alarms. Then they performed integration tests in Moscow which were carried out at the Data-center specially designed for these purposes in collaboration with contractors for communication systems and local control systems for the Expansion Project. Thereafter, all the necessary equipment and the SCADA system were delivered to Novorossiysk. The equipment was installed at the OCC and at the Backup Control Center at PS Kropotkinskaya. The backup equipment was installed at the existing pump stations, and in the course of commissioning – at the new PSs.

“Now all the basic tests of the new SCADA have been completed. The system is supplemented with additional upgrades which will improve significantly its reliability, operational performance and accessibility for implementation of the main mission of the company: safe oil transportation and tanker loading,” informed Alexander Krinitsyn.

At the present moment, the new SCADA system is functioning in the simultaneous operation with the old one: all the facilities are connected to the new system, the contractor for this project implementation is in direct contact with the dispatcher service and the control system team engineers 24 hours a day. Upon completion of the Expansion Project, the new SCADA system will also be put into operation to the full extent. ■

by Pavel Kretov



Challenging Site

LATE MAY 2017, THE CONSORTIUM OBTAINED A COMMISSIONING PERMIT FOR PS-8 WHICH HAS BEEN BUILT WITHIN THE SCOPE OF THE EXPANSION PROJECT. THE CPC PANORAMA CORRESPONDENTS HAVE VISITED THE PUMP STATION SHORTLY BEFORE THIS MILESTONE.



PS-8 construction works have been carried out since March 2014, as part of the third phase of the Expansion Project. Great amount of work has been done: Four 7.0-MW-electric-motor-driven mainline pumps were installed at the station. Mud-strainers, pressure control station, DRA injection system, PS utility systems (indoor switchgear, potable water system, treatment plant), automatic foam firefighting system and surge relief system were mounted. Framed and modular buildings were erected; access road 1.8 km long was laid out to the facility.

Constructing the station in the foothill area had some peculiarities: It was a challenging task to deliver heavy and large-sized equipment:

pumps, electric motors and various metal structures. At the construction site, a 60-ton crane had been constantly operating, and, if necessary, a 100-ton crane was involved.

From the very first peg, the station is under the management by Mr. Pavel Moskatov, an experienced oil pipeline operator having worked 25 years in the industry. He immediately showed an attitude of care towards the facility entrusted to him, participated in introducing many modifications to the design to the extent that allowed making the further PS operation and maintenance more convenient and comfortable for the personnel: which flooring to be laid in the premises, where the walkways to be arranged



Pavel Moskatov

on the territory, how to reinforce the slopes. Even the fruit trees for the station were chosen by Pavel himself, and the design institute considered these preferences in the PS design. The contractor, Velesstroy, LLC, also tried to do the work to the best of its abilities; it always met the needs and took account of the oil pipeline operators' opinion.

The mere fact of the PS-8 location in the foothill predetermined many of its particulars. The facilities are rated for 9-point seismic activity, while seven points are enough on flat terrain. The station is organized in several levels as per the cascade ▶▶





The station is fully staffed; 36 specialists are at their workplaces. 25 persons out of them are operational personnel: shift supervisors, duty electricians, operators and instrumental technicians, main and auxiliary equipment operators.

“Our team is good, close-knit and highly qualified; many co-workers have experience working in the world’s largest oil transportation company, Transneft. They won’t fail me!” – Mr. Pavel Moskatov is sure.



The control room has everything ready to receive oil

design, and its territory is smaller than that of the other similar facilities.

“The pump output at the station is also smaller than at the nearby pump stations. The capacity of all four mainline pumps is from 2.2 thousand to 4.5 thousand cubic meters per hour,” Mr. Pavel Moskatov noted. “The mission of this station is to relieve the main line in the CPC pipeline system, and such equipment is quite enough for this purpose.”

At the same time, according to the specialists’ analysis, the commissioning of this station alone will increase the pipeline throughput by 20 million tons of oil per year on the western section of the pipeline – from PS Kropotkinskaya to the CPC Marine Terminal Tank Farm.

It is exactly at PS-8 that you can listen to a story about the particulars of operation of the line section of the oil pipeline. At this station operating in the foothills of the Caucasus Mountains, the CPC Panorama correspondents met Mr. Andrei Proskurnin, Operation and Maintenance Manager of the Western Region line section. There is scraper launcher/receivers close to the pump station, the condition of which he has come to inspect.

“I am regularly inspecting all the facilities that are in my scope of responsibilities,” Mr. Andrey Proskurnin remarks.

Sometimes these inspections are performed by car; a helicopter is used for long-distances. The area of responsibility of the CPC Western Region, running through Stavropol and Krasnodar Krai, is 543 km. One of the biggest challenges is,

of course, a mountain area with a length of about 40 km. The main line is crossing mountain slopes and deep sinkages.

It is not easier to maintain a 30-kilometer section between Krymsk and Kropotkin, where the pipe is running just through the rice bays. These are special-purpose agricultural fields with seeds of rice covered with water. One should be very careful while performing all kinds of maintenance works on the oil pipeline in this area to avoid doing harm to the farmers.

“At least five days prior to the commencement of any work CPC sends a letter to the land user, and the parties discuss in detail the allocated area, approach plan, and timeframe,” Mr. Andrei Proskurnin points out.



PS-8 is fitted with powerful firefighting equipment



Within the area of responsibility of the CPC Western Region the oil pipeline crosses more than 250 plots that are owned by different land users. Everywhere, CPC carries out all production operations without harming the main breadbasket of Russia and keep up a good reputation of the CPC.

But how to ensure control of the condition of the pipeline in the area of fertile soils, which should not be touched without special need? Smart pigging comes to help.

The backbone of this technology is that an in-line inspection device is sent through a section of the pipeline in the flow of the pumped product, which determines the condition of the pipe wall and saves the data in the on-board data recorder.

The information obtained in such way is the basis for determining the technical condition of the pipeline. These data are then processed by designated software complexes and information analysis systems, which makes it possible to calculate the strength and durability indices of each pipe section with identified defects, and determine the time, methods and parameters of repairs on the linear section of the pipeline.

The CPC Operations personnel perform an additional flaw-detection inspection and repair the defective sections in accordance with the calculated deadlines. During follow-up smart-pigging inspections, monitoring is performed, growth of previously revealed defects is controlled and quality of repairs already carried out is assessed. Such approach ensures the operational reliability and safety of the pipeline operation necessary for the continued transportation of the CPC oil.

In the Western Region, the pipeline crosses various water courses about 40 times. All of them are under the spotlight of the CPC personnel, especially before the advent of freshet. While preparing for them, the Consortium implements different measures. The readiness of special emergency equipment is checked, as well as fuel availability. The pipeline route is actively patrolled on the ground and from the air. The observers

monitor the level of the rivers, the state of water drainage and culvert facilities.

The main focus of the CPC personnel is the Kuban, a large river, the flow rate of which reaches two meters per second. At the initial construction phase, the contractors completed the underwater oil line passage using the safest possible method of horizontal directional drilling; the pipe is 20 m below the river bed, and yet the Consortium specialists continue striving to make this passage even more protected. For instance, special fixed moorings have been recently installed on the river to deploy the floating booms, if necessary," Mr. Andrei Proskurnin says in conclusion. ■

by Pavel Kretov



Andrei Proskurnin

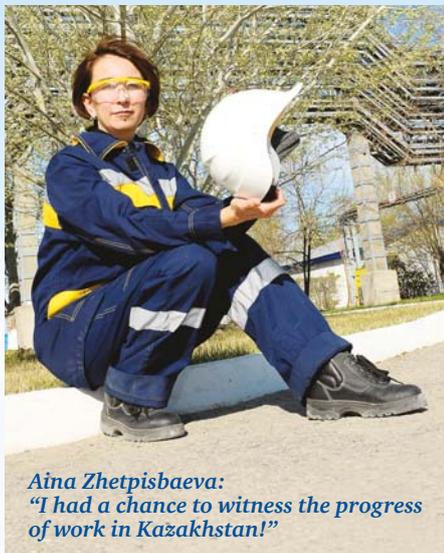


The April Shutdown

FOR THE SAFE PERFORMANCE OF WORK AT THE CPC FACILITIES IN KAZAKHSTAN THAT BROUGHT THE EXPANSION PROJECT ONE STEP CLOSER TO COMPLETION AND ALLOWED TO IMPROVE THE OPERATIONAL CHARACTERISTICS OF THE CPC PIPELINE SYSTEM, IT WAS NECESSARY TO SCHEDULE A SHUTDOWN OF THE OIL PIPELINE OPERATION IN THE END OF APRIL FOR 56 HOURS.



The main concern is safety!



*Aina Zhetpisbaeva:
"I had a chance to witness the progress of work in Kazakhstan!"*

In order to optimize the operations and to efficiently use the time, the management of Eastern region issued a special decree that clearly identified the objectives and appointed the site managers. Specifically appointed specialists monitored the safety of the work.

As a result, all the tasks that had been scheduled within the limits of the temporary shutdown were successfully completed. For example, at PS Tengiz, one DU800 ball valve, the end seals of the mainline pump, the gaskets in the flange connector of the oil

meter, and the 10 kV cable were replaced.

At PS Atyrau, a leaky ball valve DU750 was replaced. Another three ball valves had been replaced with the new ones at the UPPS 204/217 km. The station carried out a comprehensive reconstruction of the coaxial segments of the ControlNet network control system designed to guarantee the delivery of control commands to the main and auxiliary process equipment between the PS and the Main Operations Control Center at the Marine Terminal.



The work of heavy machinery...



...and manpower





The planned works were carried out under the vigilant control of the dispatchers



Connection of the gate valve switching unit at the A-PS-A3



The medical team is on its duty

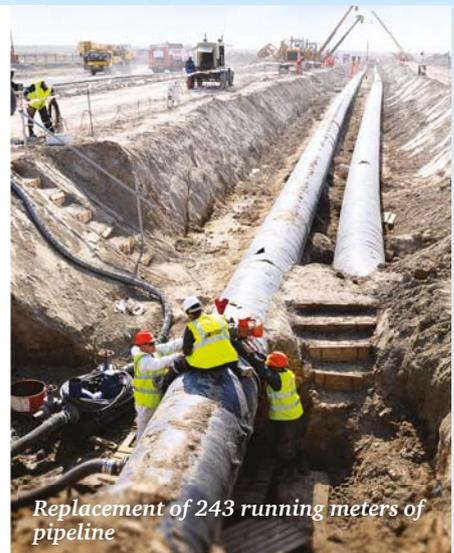
At the A-PS-3A, a gate valve switching unit was connected to the station, and there was a replacement of 243 running meters of the linear part of the pipeline. This new station was connected to the Tengiz Novorossiysk oil-trunk pipeline.

The success of this large-scale operation was facilitated by a detailed preparatory work that preceded the planned shutdown. ■

by Aina Zhetspisbaeva

During the April shutdown of the Tengiz-Novorossiysk oil pipeline, the Consortium performed planned works for the maintenance of the oil pipeline system and for connection of new facilities that were built under the Expansion Project. The planned works had been conducted at all CPC facilities both in Russia and Kazakhstan, including the Marine Terminal.

In particular, in all regions of the CPC, the Consortium audited the control logic of the surge relief automatic protection system that might be activated by an unauthorized closing of the main ball valve on the linear part of the pipeline.



Replacement of 243 running meters of pipeline



The responsible specialists on every site!



Ball valve replacement at PS Atyrau

For the Company's Smooth Operation

"MR. PETRUSHIN, WHAT IS THE SCOPE OF RESPONSIBILITIES OF THE CPC SECURITY DEPARTMENT?" INSTEAD OF ANSWERING THE QUESTION, THE HEAD OF THE SECURITY DEPARTMENT MR. EVGENIY PETRUSHIN ASKED ME A COUNTER-QUESTION: "AND WHAT DO YOU THINK YOUR COMPANY'S SECURITY DEPARTMENT SHOULD LOOK LIKE? WHAT SHOULD IT BE TASKED WITH?"



What a rank-and-file CPC employee like me might know about the work of a usually tightly secured organization?

"You can tell about any services in general by looking at its representatives" I answered promptly. "Your employees are civilized, courteous, and well disposed. One can notice their military bearing. I beg to assume that judging by the profile of our company's activities, the priorities of the Security Department are the physical, economic, and information security. And at the same time, the Security Department should remain in the shadow, be inconspicuous".

"That's right, we should be inconspicuous", agreed Evgeniy Petrushin, and then added: "And this interview to

the corporate magazine is an exception to the rule".

BEHIND THE SCENES

"What are the criteria for the effectiveness of the Security Department?" I asked my interlocutors.

"If the company is doing its business in a comfortable environment, protected against unwarranted surprises and surrounded by a positive aura, that all means that our job is well done. The Security Department should address the problems before they show up", expressed his firm belief Mr. Petrushin.

Evgeniy Petrushin is a team player. He devoted the major part of his story to his colleagues. The CPC Security Department with all its subdivisions employed a lot of professionals with the MVD, FSB, GRU and other similar security organizations background, including the Security Departments of major companies. A lot of them have high state awards and two or three higher educations.

Mr. Petrushin didn't talk much about himself, but you can notice right away that he is highly respected by his employees. An active duty officer and a proud owner of the crimson beret, he took part in resolving ethnic conflicts on the territory of

the Soviet Union and the Russian Federation, including the first and the second Chechen campaigns. He is also a member of Directorate "A" (the famous "Alpha") of the FSB Special Purpose Center, having on his account a lot of saved human lives. One such mournful event took place in 2002 when he was taking part in the freeing of hostages taken by the armed militants during the "Nord-Ost" musical performance. So, Mr. Petrushin knows perfectly well what security is and how to provide it.

WITHIN THE LIMITS OF THE LAW

Economic security is a very important branch of service that requires a lot of work. Meet the economic security manager Grigoriy Senoedov. Besides the service in the law enforcement authorities, his service record includes the work at the assets protection divisions and the Security Department of Rosatom State Corporation and JSC Russian Railways. He also participated in the development of safety measures and organization of security of the famous Sapsan project.

"Our goal is to prevent the theft of the Company's financial and material assets", said Grigoriy Senoedov. "In my opinion, the most problematic area is the field of procurement activities. Among the most common identified forms of breaking the law, there



CPC facilities are equipped with round-the-clock video surveillance

is the overestimation of the cost of purchased products from the prospected contractors. We track these issues, monitor the market, and make further inspections and investigations. When checking the suppliers of goods and services, we follow the specific procedures: first, we look at the registration and charter documents, then assess the economic sustainability of the company, and among all other things, check the applicants for any possible involvement in terrorist activities. There are so-called sanctions lists that provide the names of legal entities and individuals who are one way or another connected to the international terrorism. For example, in the Republic of Kazakhstan, the list contains the names of about one thousand people, and the number of legal entities registered at the list is running in the order of hundreds. There are companies both in Russia and in Kazakhstan that are trying to take part in the CPC tender procedures with the purpose of entering here either in an affiliate or direct form, and that are recently got attention of the special services. Get inside now, wait, and when the right time comes, take actions that might lead to the loss of the Company's assets. We must have a complete picture of whom we are letting into our house".

"How many companies are dismissed as the result of your inspections?"

"It's a fairly high percentage", answers Grigoriy Senoedov. "Our database has more than 1,500 potential

supplier-contractors, of which only 900 companies have permission to enter into cooperation with the CPC, the other 300 were not admitted, and the rest of the companies have restricted permissions. Here we are talking about the financial status of the prospected contractors, their organizational and legal structure, and the quality of services offered that should be in line with the CPC requirements. The highest priority for us is quality, with the standards set by the Shareholders. We believe that it is not enough to offer the Consortium a low price. The most important factor today is the high quality of works and services, the fulfillment of the contractual terms and other obligations of the contractor."

Operating within the framework of Russia's legal and normative standards, we are trying to be in step with the times. For example, on May 13 of this year, the President of Russia approved "The Russian Federation Economic Security Strategy until 2030". It is a document that defines the policy of the state in respect to ensuring its economic security. Therefore, at the Security Department block we went ahead with the preparation of the CPC Economic Security Policy. Our Company is quite substantial in terms of presence of the share capital, both of Russian and foreign origin. The CPC has created a great economic potential, and in order to preserve it we must follow the canons, norms and rules that are defined by the state. We follow the same rules, that is,

a strict compliance with the legislation, in our activities on the territory of another large state of the Customs Union, the Republic of Kazakhstan", underlined Grigoriy Senoedov.

ALONG THE PIPELINE

The oil pipe is the main lifeline of the Consortium. It is the basis and the meaning of existence. That's why the security of the production facilities is of primary importance. The security of the linear part of the pipeline, the oil pumping stations, the marine terminal and the tank farm is under responsibility of the physical security manager Aleksey Senchenko. He began his job at the Security Department by spending his first month on business trips, thoroughly acquainting himself with the facilities, looking for gaps in security, and developing measures to eliminate the shortcomings.

"With his experience at the renowned Vympel, Aleksey managed to identify all problems relating to the security of our facilities", said Evgeniy Petrushin with satisfaction. "A lot of shortcomings need our immediate attention for their elimination. Unfortunately, we can't promptly solve these serious problems due to the lengthy document coordination procedures at our Company. I like to do things fast, and my people too. If it takes up to six months to complete the paperwork, it is not good for the common cause."

"The security of the pipeline is a top priority for our Security Department", »




**GRIGORIY
SENOEDOV:**

"The other day during a meeting with colleagues from another country we were asked, in our opinion, a strange

question: "What would you do if you get a drunk person on production facilities?" An unauthorized person on the CPC premises is an oxymoron! On a bigger scale, Russia is now going through a legislative revolution in the field of transportation and energy facilities security. The new Federal Laws No. 256 and No. 16 are now being implemented. The laws prescribe the most stringent measures that we must follow rigorously. You can't find anything like this in the whole world; we are the pioneers in this field".


**ALEKSEY
SENCHENKO:**

"We are changing a conceptual approach to ensuring the security of the pipeline. Our task now is not to just

detect the intruder or to identify an illegal tapping for prompt elimination of the consequences, but to fully prevent any criminal activity on the protected sites. The tappings are fraught with severe environmental damage: if you have an opening 16 mm in diameter in the body of the pipe, that could lead to the spill of oil at the rate of 50 m³ per hour"


**ILYA
BORISENKO:**

"The Security Department is not a punishing sword. It is a providing unit like the Human Resources Department, the Finance Division, and the Press Service...

We provide a quiet and safe operation of the team, we protect the pipeline, and help the Company to get the right contractors. Besides that, we are ready to help any CPC employee who gets into a difficult situation, like becoming a victim of crime. If required, we can help to arrange the right communication with law enforcement bodies, to consult and to provide the services of a lawyer"



Teamwork is the key to success. A morning planning brief at the office of the head of the CPC Security Department

says Aleksey Senchenko. "Almost every day, the whole route is covered by our security team on foot, with each group carefully examining from 3 to 6 km of the pipeline a day. We also use the mobile patrols, and regularly conduct the helicopter overflights. However, the challenges of the new times require improvements in our approaches to the organization of protective measures. The CPC line is going through troublesome areas in respect to criminal activity, with people having very low salaries, and therefore with the ripe conditions for theft. We identify serious intentions for the unauthorized tapping. Under these conditions, the professionalism of the personnel of private security organizations that we are working with is of a paramount importance. A well-trained guard, who is carrying out the physical protection of the pipeline and who knows the terrain to the smallest detail, can notice the minute nuances in changing of the relief in the security zone of the pipeline. That type of employees is very valuable for us. Unfortunately, even though we keep their salary level under control, there are still competing organizations out there that can lure out our personnel by promising the increase in wages from 10 to 15 thousand rubles. For example, a few months ago the Central region suffered a simultaneous quitting of 30 guards, which caused a great regret."

"Every region has its own specifics as to the ways of providing pipeline security", goes on Aleksey Senchenko. "If in the Central region you can

provide an on-foot examination of the pipeline every day (and that's about 500 km!), then in the Western region, where there are almost no available roads along the pipeline, we put special emphasis on working with the local population: we bring to people the idea that the inviolability of the oil pipeline is a guarantee of ecological safety of the oil transfer process, and that it is in the best interests of the people who live there. We managed to get through to almost everyone."

The current body of the Security Department is not inclined to attribute the absence of unauthorized taps to its own activity only. There are several leading figures in the team who originally formed the service and who are now being approached for advice even by colleagues from other companies.

"We need to constantly improve and refine our operation", says Evgeniy Petrushin. "We are optimizing the Security Department, its technical facilities and other means to bring it in line with the modern-day requirements. The composition of the Security Department in respect to specialists hasn't changed much since the beginning of the organization. Now we live in different times, and the number of facilities has increased three-fold, with a corresponding increase in the workload. We spend a lot of time working with people, organizing in Moscow staff meetings of the physical security and internal affairs employees. We also invited for training the regional managers of

the Security Department, and the specialists in the field of economy.”

“Besides that, we spent part of our time working with the directors of private security organizations that are contracted to work at the CPC facilities in Russia and Kazakhstan. It gave us a positive outcome. Now all the issues specific to local organizations are being resolved promptly. During the training exercises, the security teams uncover 100 % of the dummy objects and caches implanted for training purposes. They also detect all changes on the terrain in the range of 100 m from the pipe. It means that people are taking a very conscientious approach to their jobs.”

“Even though the problem of security should be addressed by the Security Department in the first place, but on a bigger scale, it should involve everyone”, added Aleksey Senchenko. “Just as the fight against terrorism implies participation in it of every citizen of the state, the prevention of illegal tapping is the duty of all employees of the Company. If anyone notices something suspicious near the object of the CTC, or detects a trespasser, his or her duty is to immediately inform the staff of the Security Department about it. But at the same time, you should stay inconspicuous and try to not detain the perpetrator by yourself.

It’s the job of the specially trained personnel.”

THE TALE OF THE ROADS

“What should be done to improve the security of the linear part of the pipeline?” I couldn’t help myself from asking the Security Service staff this question because I myself had to drive along the pipeline in the steppes of Kalmykia and the Astrakhan Region. To call it a road would be a bit of a stretch...

The topic of the roadways caused a lively response from the people I talked to.

“There are areas with only sand dunes around it and no visibility to check the pipeline. Have you ever seen a route in the spring?” asked Evgeniy Petrushin. “In some places, we have expanses of water up to 300 meters wide, with no way to pass it on foot or by truck. In wintertime, we have no less amount of trouble: the marshy ground can suck in the UAZ up to the hood, and sometimes the team cannot even open the door to get outside. The trucks cannot be pulled out even with tractors, the machinery breaks down. We have to worry about the people all the time. If we can’t get through to them in time, they could die from the low temperatures. We already

went ahead with the idea to buy the winter tractors and caterpillar vehicles. The problem should be addressed in a more radical way. In my opinion, during the summer time, we need right away to get down to building a cross-country track along the pipeline, at some places making padding, flooring, and installing bridges, or making the grader cuttings through the sand dunes and providing good visibility of the route. Invest your money once and then enjoy the comfort of the road for ten years. There will be no breakdowns of the equipment, and you won’t have to worry about the people any more, the whole process will be under control, with the increase in efficiency of the Security Department on the linear part. A good road is one of the most important and indispensable elements of reliable pipeline security.”

The head of the Security Department also expressed a concern over the careless driving of vehicles without permission in the pipeline security zone. The vehicles can cross the track wherever they like. At places where it happens all the time, it is only reasonable to arrange overpasses with warning signs. In this way, we will eliminate the unauthorized crossings and chaotic driving fraught with unpleasant surprises, with all the drivers obeying the rules of the CTC. »



CPC General Director Nikolay Gorban gives much attention to the security of the company facilities. His on-the-spot visits to the oil pumping stations in both Russia and Kazakhstan begin, as a rule, with meeting the security personnel and checking the functioning of their equipment

LEGITIMATE REQUIREMENT

Together with the protection of the linear part of the pipeline, the Security Department also monitors the perimeter of the oil pumping stations, the tank farms and the coastal facilities of the marine terminal. Anyone visiting the CPC facilities can get the sense of strictness of the admission process, which is not limited to the checkpoints only. Every step you make on the surveyed territory is under control by the guards, and the object itself is under observation day and night with the use of high-resolution monitors, that receive pictures from ubiquitous video cameras.

“We understand very well that not all employees of the Company are happy with the strict security rules set at the facilities and offices of the CPC. During the day, you must repeatedly show your pass, apply it to the readers, and go through the metal detector. Some people are very uncomfortable with it” says Ilya Borisenko, the deputy head of the Security Department. “I would like for every employee to understand that all this is done not only for the safety of the facilities, but also for the safe work of the personnel. People sometimes underestimate the real risks they face, and it is only natural for a person to drive away bad thoughts. It all comes down to basic psychology. I don’t want to scare you, but as a reminder I would like to tell you that all the fuel and energy complex facilities are the primary targets of the terrorist activities, and to be ignorant of it would mean to behave like an ostrich that is burying its head in the sand.”

“The CPC infrastructure is situated in the Caucasus region, which is very

problematic in respect to terrorist activities” reminds us Evgeniy Petrushin. “Just a few years ago, the militant units moving from the territory of Dagestan, Ingushetia and Chechnya with the intention of disrupting the Olympics, reached the city of Novorossiysk. And now we have caches of weapons hidden there. We don’t have the right to ignore these facts and we call on the others to take the same stance. In the present situation, sometimes it is better to err on the side of caution in order to



prevent the undesired consequences. After all, no one expected and did not foresee that the aircraft would crash into the towers of New York. It’s only after this happened, that a certain number of security measures were adopted.”

IN CONJUNCTION WITH THE LAW ENFORCEMENT

The CPC Security Department is working in cooperation with the law enforcement organizations.

“As employees of the Security Department, we don’t have the right to conduct investigations and detain

the criminals. That’s why we are enhancing our cooperation with regional departments of the Ministry of Internal Affairs, FSB, and Rosgvardiya,” mentions Evgeniy Petrushin. “We hold joint meetings and assign our colleagues the tasks of ensuring the security of our facilities. A very important meeting took place on the border of Kalmykia and the Astrakhan Region, with the participation of about 30 representatives from various organizations like the police, the FSB, the criminal investigation department, and the customs. The regional security manager Valery Avanesov and the General Director of the Private Security Organization Nachin-Elista Vladimir Badaev offered us a helping hand with organizing the forum. We are also the initiators of several similar meetings that are taking place in different regions with the presence of CPC. And the important thing is that everywhere we reach a mutual understanding.”

Unfortunately, one cannot describe all aspects of the activity of the Security Department of the CPC in a single interview. It would be unreasonable to tell about some fields of activity of the Security Department, and to ignore the others. We agreed to continue the topic in the next issues of the corporate magazine. ■

by Ekaterina Suvorova





To Be Ready For Any Challenges

IN THE MIDDLE OF JUNE, THE CPC-R AND THE MINISTRY OF EMERGENCY SITUATIONS (EMERCOM) DIVISION FOR THE STAVROPOL KRAI HELD THE COMPREHENSIVE JOINT DRILL (CJD) ON THE TERRITORY OF THE APANASENKOVSKY MUNICIPAL DISTRICT OF THE STAVROPOL KRAI.

The aim of the exercises was the elimination of a simulated emergency oil spill on the 960th kilometer of the mainline oil pipe Tengiz – Novorossiysk, at the intersection of the main pipe with the river Kalas.

AFTER THE STORM

The environment itself has added to the challenges that were facing the participants of the CJD: the river was all flooded and swollen from the heavy rains. On the day of the exercises, the weather forecast was by no means any more comforting. The day before there was a torrential

rain with hails and squally winds, and we thought that the exercises would be cancelled... But the organizers of the CJD did not reschedule the exercises for a more favourable time, because the disaster could come whatever weather conditions there are, breaking the peaceful and measured pace of our life.

When we came to the site of the exercises, the storm clouds menacing us with the heavy rain had already scattered. Even from afar, one can see a large column of equipment ready for elimination of the oil spills on land and water. The passageway for

observers and visitors was marked by ribbons and flags. We were given hard hats and offered to treat our clothes with repellents, although the whole field had already been processed with anti-tick products. That kind of care for people's health was in the spirit of the CPC.

The event started exactly at the appointed time of 9:00.

The Stavropol Krai showed great interest in the event with the training being attended by Vitaly Khotsenko, the Minister of Industry, Energy »

Greeting the participants and specifying goals



Communications center at the headquarters car





The Manager of the Western region of the CPC, the Head of the CJD Sergei Potryasov:

“The exercises were conducted on a high professional level, and, most importantly, without any

excesses or injuries. The results set were achieved, with all the tasks completed on time, or even ahead of schedule. Preparation for a large-scale event like this takes many days and requires a cooperation of specialists from the CPC, the Ministry for Emergency Situations, the leadership of the Stavropol Krai and the local administration. The result of cooperation was the unity of the Company, the authorities, and the local population. We know that in the Apanasenkovsky district we have people we can rely on, and that in case of emergency, all necessary complex works will be done with the consequences of the emergency minimized. I am confident that all our problems will go on to be exclusively of a training nature. However, one must be ready for situations like this, and have a carefully selected and prepared team capable of coordinated and professional work to solve any problems at earlier stages. Today, cohesion and professionalism have been demonstrated to the full extent.”



The Deputy Head of the Main Directorate of the Ministry of Emergency Situations of Russia for the Stavropol Krai Colonel Nikolai Lubavin:

“Today’s exercises have become one of the most important events to work out the course of actions for elimination of the simulated oil spills. Every two years, we are working out joint actions of the territorial unit of the Russian Unified System for Preventing and Eliminating Emergency Situations (RSCHS) to eliminate this type of emergency situations. In this case, the Federal Fire Service of the Stavropol Krai has extinguished the simulated fire. The event required participation of 10 units of equipment and 42 people from the Federal Fire Service.”



The arrest of plunderers of crude oil

and Communications. He addressed the participants of the CJD with a welcoming speech on behalf of the Governor of Stavropol Krai. Noting a big contribution of the CPC to the social and economic development of Stavropol Krai, the Minister mentioned the timeliness of such major joint exercises:

“You all know very well that the weather has not been favourable to the Stavropol Krai recently, and among us there are EMERCOM employees who participated in the liquidation of the flood consequences in a number of municipal districts of Stavropol Krai. The events like this can help us to prepare for the challenges of weather, and natural disasters. I wish you go through the exercises without any injuries or unpleasant incidents, and safely return to the workplaces in good spirits!”

Vladimir Tkachenko, the Head of the Administration of Apanasenkovsky district, expressed his satisfaction with the fact that the municipal entity has been chosen as a place for conducting exercises:

“We have more than 55 km of oil pipeline. The pipe crosses areas with varied topography, so you need to be

able to do things right in any situation. Today’s exercises will bring our knowledge to a new level. There is a good saying: keep your powder dry!” he said.

READY FOR THE EXERCISES!

A representative of the Ministry of Emergency Situations made a report to the Head of the exercises, the Manager of the Western Region of JSC CPC-R Sergei Potryasov in front of the line of participants of the CJD. In military style terms, he reported about the readiness of the manpower and equipment for the exercises. The Manager, in turn, identified the goals and objectives of the forthcoming exercises.

The head of the occupational health and safety department of the Western region of the CPC-R Alexander Zhdanov held a special briefing with the participants. He emphasized that the safety of people in whatever project the CPC is carrying out is of a top priority.

The guests and visitors were informed about the exercises, and shown the impressive arsenal of machinery and equipment for the localization and liquidation of oil spills. They could also watch the course of the exercises from a specially designated observation platform.

Extinguishing of a simulated fire



CAUGHT RED-HANDED

The message wasn't unexpected, but for some reason, it resonated in the hearts of everyone with a real sense of alarm. At 10:00, the information was received about a pressure drop in the pipeline. The dispatcher of the Operations Control Center at the CPC Marine Terminal near Novorossiysk immediately stopped the transfer of oil (not for real, of course!), cut off the emergency site by closing the ball valves and notified the management and dispatching services of the CPC about a possible accident. At the same time, the notifications were sent to the Manager and the specialists of the Western region, the head of the shift of PS Kropotkinskaya, the operational officer of the CPC Security Department, and the dispatcher of the contractor, LLC STARSTROY.

Mobile security patrols of the CPC and the emergency vehicle of the Emergency Response Station (AVP) Ipatovo rushed to the site of emergency to examine the problem area. The main body of AVP Ipatovo and AVP Kropotkin were put on a ready-to-repair alert for a possible accident.

The mobile patrol of the private security organization NEFTEGAZOKHRANA, that arrived at the scene, found a tanker truck and suspected oil »



The Minister of Industry, Transport and Communication of the Stavropol Krai Vitaly Khotsenko:

"We have good relations between the Stavropol Krai and the CPC, based on a good long-term partnership history. The Comprehensive Joint Exercises are very timely events. You know very well that the weather conditions in Stavropol Krai haven't been nice to us recently. Here we have employees of the Ministry of Emergency Situations, many of whom participated in the liquidation of the flood consequences in several municipal districts of the Stavropol Krai. That's why this CPC event is very timely. We must be ready for the challenges of nature and environment. The long-term cooperation and partnership between the Government of the Stavropol Krai and the CPC is mutually beneficial. I can say that the social assistance to our region is growing every year due to the successful work of the Shareholders, the management and the Company. Over the past year, we received from the Consortium 67 school buses, completely covering the needs of schools in six districts with the CPC pipeline. The help direction of this year is the purchase of ambulance cars. Now our task is to cover the requirements for the coming years and to renovate the park of ambulance cars for both the district hospitals and the regional institutions. The construction of a children's polyclinic in the town of Izobilny is going on with the funds from the CPC. This is a good project, which is taking place within the framework of the Expansion Project. With the commissioning of the PS-5 in Izobilnensky district, we will have increase in the business and property taxes to the regional and local budgets. We are very grateful to the Company for its contribution to the social and economic development of the region. For our part, we will always try to respond positively to any request and contribute to the work of the Company."

"It is a good thing to conduct such exercises every year. Not all enterprises have such an opportunity. People should be ready to respond to any challenges. It is even more gratifying that this year, the Consortium is developing a new environmental program. On this occasion, the Governor, Mr. V. Vladimirov, had a meeting with the head of the CPC, Mr. N. Gorban. The conversation was about the acquisition of species of the axis deer for the regional wildlife reserves of the Stavropol Krai. This project is under discussion now. It is a good project that will increase the deer population in the territory of the Stavropol Krai. As for the safety, once again, by the end of this summer in our region, in the city of Stavropol, the CPC-R is planning to hold a large event on labor protection. It will be attended by representatives of all the territories with the presence of the CPC, the management and the Shareholders of the Company. I am sure that such large-scale forums will strengthen and improve the safety of the pipeline staff. Thank God, in recent years we didn't have any failures or oil spills. With all its activities, the CPC is demonstrating the reliability and safety of the oil transportation process."



Liquidation of illegal tapping



The Engineer for labor protection and industrial safety of the Western region of the CPC Alexander Zhdanov:

"The idea, scenario and the program of exercises takes into consideration the requirements set by the law, as well as by the subordinate regulations of the Russian Federation in the field of environmental protection, that are fully implemented at all facilities of the CPC. The Comprehensive Joint Exercises were performed at the highest standards. Everything went according to the scenario, and in conformity with our ideas, the way it should have been. Although everyone knew that these were just exercises,

the participants have very conscientiously worked out the algorithms of interaction, which is a very important fact."

"The acquired skills will be very useful in a real emergency, when an unprepared person would be simply lost. Joint exercises like this are necessary for people to be ready for any unexpected situation that may arise because of an authorized tapping. For these reasons, we developed a wide range of contingency situations, going under the worst-case scenario: the oil spills on land and water, the fire, the rescuing of people injured in the zone of emergency. The participants of the exercises showed their best qualities. Their actions were subordinated to the main goal: the preservation of ecological balance in the area."



The Manager of the maintenance of the linear part of the oil pipeline of the Western region of the CPC Andrey Proskurnin:

"All the participants of the Comprehensive Joint Exercises, and especially the employees of the CPC, Starstroy, the Emergency Ministry, and the Stavropol Ecospas Center showed that they are ready to eliminate any accidents. It is not my job to evaluate the results, but for my part I would like to say that the exercises were conducted on a good level. I had an impression that the representatives of different organizations

worked as one team. Everything that happened during the exercises was preceded by special training, so for the observers, everything went like clockwork. Of course, the emergency services of the CPC in real life should work fast and be ready for any surprises. We regularly conduct such exercises to improve the coordination of our mutual efforts."



The Head of Administration of Apanasenkovsky Municipal District of Stavropol Krai Vladimir Tkachenko:

"It is an honor for us that the exercises were conducted on the Apanasenkovsky land! I would like to use this opportunity to thank the CPC-R for its social orientation. The cooperation of the district with the Company is dating back to the time of construction of its facilities. We always feel support and help on your part. The district was provided with assistance in the amount of more than 40 million rubles for the health, education, culture, and other purposes. This year alone,

our educational institutions received reserve power supplies. The CPC offered us a wonderful gift of 8 school buses. We are pleased and proud that such a great Company operates on our territory. I express my deep gratitude to the management and looking for further cooperation!"

"Today's large-scale exercises showed the Company's concern for the safety of residents of our region, and the ecological cleanliness of the territory through which the CPC pipeline is going. After all, it's not a big secret that the weather has been changing lately, and the natural cataclysms are happening more often. The Consortium once again demonstrated what is the proper way to work and conduct business."

thieves, and informed the CPC Security Department. The Security Department sent the alert signal to the Interior Ministry department (OMVD) in Apanasenkovsky district. A few seconds later, the OMVD task force was on its way. Detention of the criminals was one of the most spectacular show scenes of these exercises. It looked like a piece of an action movie. Everything has happened in a split of a second! In real life, the black gold plunderers caught red-handed wouldn't have had a chance to avoid the criminal sentence.

REAL FIRE WITHOUT OIL

Usually, the exercises are modelled with a worst-case scenario in mind. An illegal tapping of oil caused leakage from the pipeline. The hydrocarbons got into the river, and an ignition set the oil on fire at the bank of the river. An aerial overflight of the site of incident helped to clarify the true scale and nature of the disaster: the main volume of spilled oil accumulated on land, part of it got along the natural folds of the terrain into the river Kalaus, leading to a large-scale "pollution" of the river side. The CJD mission is to prevent an ecological disaster.

All concerned organizations were notified about the accident. They



Taking the water samples

included the Ministry of Emergency Situations, the Ministry of Internal Affairs, Rostekhnadzor, Rosprirodnadzor, the authorities... Testing the notification scheme is one of the tasks of the CJD.

By the plan of the exercises, there was a danger of spreading of the fire in the direction of a nearby symbolic village. The residents had to be urgently "evacuated". At the same time, the liquidators of the accident began their work on the creation of a mineralized zone separating the village from the place of accident, and the volunteers took up their shovels.

The firefighters had extinguished the fire, but there were losses: one of the firemen received "burns". Then to the aid came the representatives of the Disaster medicine, rendering the first aid to the victim and sending him with a special transportation to a burn center in the city of Stavropol.

ON WATER AND ON LAND

We keep watching the flaming battle for the localization of oil spills and collecting it on water and on land. All the necessary manpower and equipment is engaged. There is a whole column of highly specialized all-terrain vehicles that arrived at the place of emergency. They use absorbing dams, absorbing mats and other devices. There is a pit dugged at the place of unauthorized tapping, with outside drainage pit and trenches, a reservoir for collecting hydrocarbons, a barn for temporary storage of oil pumped from the pipeline



Unfolding the booms

section being repaired. On the river, there are three barriers of oil-spill booms set up with the help of the boat "Master-500" which did not allow the oil slick to go downstream.

The observers could also notice people in white coats. They are the specialists from the ecological laboratory, who with the help of rapid analysis instruments determined the boundaries of the territory affected by the spilled oil. The laboratory is continuously monitoring the air in the spill zone, every 30 minutes running checks of the gasses, the laboratory technicians taking samples of soil and water.

The result of these actions was predetermined: the spill was localized; the shore was cleaned of the soil soaked with oil. After sealing the pipe and installing the repair structure, all collected "oil" was put back to the pipeline.

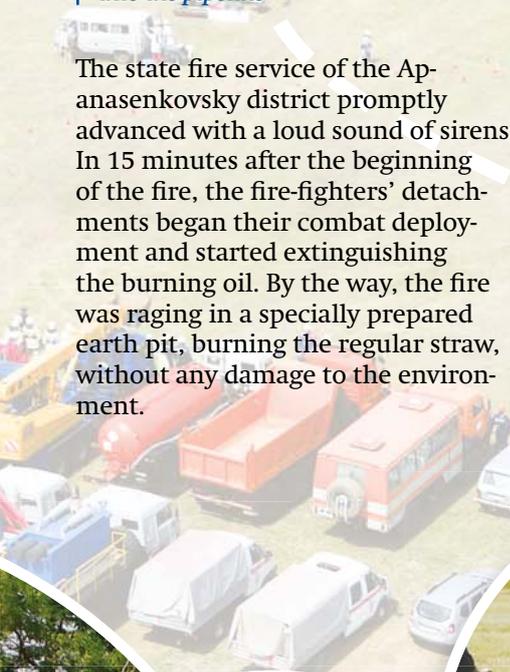
Of course, there wasn't really a single drop of hydrocarbons getting to the water or soil during the time of the CJD; all contaminations were simulated.

We had a chance to witness a fast and coordinated work of the personnel of CPC-R, STARSTROY LLC, the Ministry ▶



Pumping the collected oil back into the pipeline

The state fire service of the Apnashenskiy district promptly advanced with a loud sound of sirens. In 15 minutes after the beginning of the fire, the fire-fighters' detachments began their combat deployment and started extinguishing the burning oil. By the way, the fire was raging in a specially prepared earth pit, burning the regular straw, without any damage to the environment.



Taking the soil samples



Laboratory employees

of Emergency Situations, the Ecospas Center for Emergency Rescue and Ecological Operations. The coordination of collective actions was carried out by created for this purpose the Headquarters for the Elimination of Emergencies, which included representatives of all parties.

The exercises culminated in a line-up, summing up of the results and awarding the distinguished participants. The Manager of the Western region of CPC-R Sergey Potryasov noted that the event was held at a good organizational level, with all participants showing their careful and professional attitude and meeting the established standards.



On the final line-up

This kind of large-scale Comprehensive Joint Exercises is organized by the Caspian Pipeline Consortium at its facilities on a regular basis. Nevertheless, the CPC staff is constantly improving its professionalism, honing their skills and course of actions in emergency conditions during the internal training sessions. ■

*by Darya Margelova,
Ekaterina Suvorova*



The Senior Engineer for Civil Defense, Emergency Situations, Oil Spill Response and Fire Safety in the Western Region of the CPC Igor Ignatkin:

“There is nothing ideal in this world, and you have always something to work on when organizing the Comprehensive Joint Exercises. Besides the training purposes of such events for their participants and being an entertainment for the observers, there is another interesting and useful side of the CJD: the establishment of working relations between the specialists of the CPC-R and the representatives of the regional and local administrations,

the Ministry of Emergency Situations, the Ministry of Internal Affairs, environmental services, emergency medical services... It also should be noted that in preparing these exercises, nobody ever refused us anything, including the head of the farm who allocated for us a plot of land on his property and took part in the preparatory activities. It turns out that we are not alone in taking interest in the CJD, and the safety of the pipeline is a common concern.”



The Manager for Fire Safety, Civil Defense, Emergencies and Oil Spill Response of the CPC Yuri Prokhorov:

“The exercises show that the CPC personnel, the emergency response personnel of the contractor, and the EMERCOM staff are ready for the effective cooperation in emergency situations. Such large-scale exercises of the CPC are conducted twice a year, at different locations of the linear part of the pipeline. In addition, major oil spill response exercises are conducted in the Marine Terminal area of responsibility. There are about 15 exercises a year conducted in Russia and Kazakhstan, including

the fire and tactical exercises at the PS and a smaller scale exercises for elimination of oil spills. Such exercises lead to the increase in the level of preparedness of the emergency response forces of the CPC to react to abnormal situations. In getting ready for these events, the participants of the exercises are conducting thorough training, and preparing equipment and machinery. The exercises themselves are a demonstration of the existing technical arsenal and the skills of the personnel for the elimination of emergencies. I believe that such exercises are very useful and must be conducted on a regular basis.

The participation of local volunteers in such type of events also demonstrates to the local population our readiness to eliminate possible emergencies on our pipeline and helps to strengthen the Company's positive image in the regions.”



Awarding ceremony for the participants



Save and Protect

"WHAT DOES ECOLOGY MEAN IN YOUR LIFE?"
THIS IS THE QUESTION THE PRESS SERVICE
ADDRESSED TO THE PERSONNEL OF CPC.



ANGELINA MASLEN-NIKOVA,
a leading specialist
in schedules and
documenting the oil
for transportation by
the oil shippers:

"During my sea travels, I came across a sad reality of pollution of the water environment. The garbage that is a product of human economic activities is everywhere – from the sea beaches to the most remote and deep places in the ocean. Most of it is in a plastic form. These things don't decompose in water and cause irreparable damage to the water environment, killing millions of species of marine life, birds and mammals. Together with my friends we are trying to collect as much as possible of these floating debris.

Taking care of the environment continues in my everyday life. I try to save water, sort the garbage for glass, paper, and plastic; use less of plastic disposable dishes and bags."



MIKHAIL GLADKIKH,
Senior Information
Technology Engineer:

"We are proud of our great country and its expanse. However, from my point of view, this leads to

a negligent attitude to the environment. Many of us have seen huge mountains of garbage outside the city. Large landfills are burning or smoldering, emitting acrid smoke. It is easier for us to throw the waste out and forget about it, to take it away or bury, than to invent and make high-tech equipment for its utilization. It is simpler and cheaper when this garbage lies buried in the ground, giving off all the elements of the periodic table, or is burning

in an incinerator a block from your house... And the sad thing is that there is no interest in changing the way things are now neither in the government nor in society. The mentality of our society is a personal benefit, with the horizon of plans extending for no more than a year ahead. We are all talking about a bright future and wish the best for our children, but we do not respect our Motherland and the Earth, and do nothing to ensure that our children could drink clean water and breathe clean air. The world is becoming disposable. The consumer boom has instilled in us the rule: "If it's broke – throw it away, and buy another one!" But the things that we don't need might be useful for somebody else...

The problem of garbage and waste is not only of technical nature. It's a social problem. Recently, I realized that I cannot just throw something away into the trash bin that can be recycled into something useful without damage to the environment. Plastic can be turned into a covering for a sports field, waste paper can be used for making packaging and cardboard, glass can be recycled many times (let's say a kind word about Soviet time with its reuse of glass bottles). Attempts to install separate bins for different types of waste until recently has not been successful – the garbage trucks and people dump everything in one place.

It's good that there are places where there is a separate collection of waste in earnest. Everyone can make contribution, and support the initiative of enthusiasts who have created the infrastructure for that type of activity. It is just enough to rinse an empty bottle or a packet of juice and instead of trashing it in your yard, take it to the nearest recycling point. It can be found on the map of Greenpeace: <http://recyclemap.ru/>. Of course, this requires some time which could be spent "usefully" by watching your favourite TV

series, but then again, everyone makes his/her own choice.

The thought of the day: "He who takes out the garbage to the trash bin – his home is his house. He who sorts it out and takes it to the recycling – his home is his Motherland."



GULZHAN MUGSALIYEVA,
Administrative
Assistant, Eastern
Region, Astana
office:

"Every day the inhabitants of the Earth each produce kilograms of garbage. It is not only a safe waste. A non-decomposable plastic bags, mercury-containing electric lamps, batteries, and many other things end up in a common container, polluting the soil, air and water. In modern society, the volume and nature of waste already leads to the danger of a global environmental crisis.

Everyone should pay attention to the urgency of the problem of waste: do not throw garbage away randomly, do not throw bottles in ponds, etc.

In my home town, I started to see more specialized containers for the separate collection of plastic, food waste, and fluorescent lamps, which makes me very happy. I am for the development of civilized treatment of waste, because I believe that the ecology begins with us." ■

FROM THE EDITORIAL BOARD:

Our survey goes on. Dear colleagues, if you have something to say on the topic of "Ecology in my life", please share with us your opinions and experiences with a careful attitude to the environment and natural resources!



The Fragile World Is In Our Hands!

THE ENVIRONMENTAL EDUCATIONAL PROJECT, FIRST INTRODUCED BY THE CONSORTIUM IN 2014, IS ATTRACTING MORE AND MORE PARTICIPANTS. IT ACQUIRED A NEW SIGNIFICANCE IN THE YEAR OF ECOLOGY THAT WAS OFFICIALLY PROCLAIMED IN RUSSIA.

The CPC project event "Let's Preserve the Nature of Our Homeland!" was held in Astrakhan region from April to May 2017. The program of the event consisted of two parts: the first part was devoted to biotechnology and the second one to information and education. In the first part, representatives of the CPC, CaspNIRKh, and the Volga-Caspian Territorial Administration released 2,893 pieces of sturgeon fry each weighing from 100 to 600 g into the near-delta area of the Caspian Sea. The schools of five municipal divisions held open lessons with the informational and educational purpose in mind under a common theme "Sturgeon is a relic fish that has come down to us from the time of dinosaurs. Let's save it for the future generations."



Tatyana Vasilyeva and Mikhail Grishankov

The closing events of the environmental project "Let's Preserve the Nature of Our Homeland!" took place on May 24 in the village of Ikryanoye, Astrakhan region, on the territory of the scientific and experimental station BIOS of the Caspian Fisheries Research Institute (FGBNU CaspNIRKh).

About two hundred guests, including representatives of administration of the Astrakhan region, the Consortium and CaspNIRKh, the schoolchildren who were

the winners of the creativity contest, their parents and mentors, released into a specially prepared slot the young of the sterlet and ship sturgeon, which next day went free into the wild.

Some of the children have already had similar experiences (the CPC project was held in the region for the second year in a row). That's why they came with a "support group" of their mothers and grandmothers who were armed with modern gadgets, doing their best to

capture the touching moments of their children caring for the sturgeon. The event was very emotional indeed, leaving with good memories both children and adults.

"I believe that today's event will remain in the memory of everyone who participated in it," shared his impressions with us Mikhail Grishankov, CPC-R Deputy General Director, RF Government Relations. "In fact, the pace of life is very fast, and we don't even have time to think about what we leave behind.





Unfortunately, we can see a lot of examples of the destruction of nature around us. Here at the BIOS station, they are leaving behind the fish in the Caspian Sea, and it's a very important matter. I want to say a big thank you to the management of CaspNIRKh, and personally to its director, Mrs. T. Vasilyeva, for organizing this project!"

As soon as all the fish were in the slot in anticipation of a big journey, the participants of the ceremony went into assembly hall to attend a concert prepared by the Astrakhan schoolchildren. The main part of the program was a sketch with the participation of young artists, showing how for the sake of satisfying some human whim, sometimes not giving a thought, people destroy living organisms and rare plants. A little girl who wanted to have a lotus flower in her room was confronted with the fact that, when separated from the natural environment, the lotus began to wither in front of her own eyes. Only the fairy tale format allowed her to save the fragile plant. As soon as the girl realized what she had done and became sorry about it,

the beautiful flower came back to life again. Unfortunately, in real life, it's a different story, so the viewers had something to think about.

The last part of the concert was the awarding ceremony. Mikhail Grishankov awarded the winners of the creativity contest with diplomas and prizes. The contest received about 400 children's works in four nominations: "Picture", "Decorative and Applied Art", "Multimedia Product", and "Photography".

"I would like to thank everyone who took part in this project," addressed Mikhail Grishankov the children in the auditorium. "Our future, in fact, depends on the way you treat the nature. By releasing the fish and working on creative projects, you learned life lessons that I hope will give you a boost of energy for the promotion of the idea of preserving the nature of your native land. I think that the children who didn't participate in this contest will be a little bit envious of you and next year will perform even better."

The best of children's works were put on show in the lobby of the BIOS

center that turned for one day into a real exhibition of children's creativity.

Director of the Caspian Fisheries Research Institute Tatiana Vasilyeva thanked the management of the Consortium for giving the opportunity to implement this project and wished the company successful development for the benefit of the Astrakhan region and its people.

"There is no doubt that this project is a very valuable contribution to the cause of preservation and replenishment of the sturgeon population in the Volga-Caspian basin," stressed Tatyana Vasilyeva. "The memories of these events will stay with children for the rest of their long and happy lives. I hope that when they grow up and gain control over the power, science, and business, they will be able to properly dispose of their capabilities for the prosperity of our Motherland! I also hope that the population of sturgeon in the Volga-Caspian basin will increase many times!" ■

by Ekaterina Krapivko



In Our Common Interests

IN THE PROJECT OF THE EXPANSION OF THE CPC PIPELINE SYSTEM CAPACITY, A PROMINENT ROLE IS PLAYED BY THE ENVIRONMENTAL COMPONENT.



The World Environment Day is traditionally celebrated by the KSS employees by way of the “planet cleaning”



Inzhu Aitmagambetova

For the monitoring and control of environmental impact in the course of construction and installation operations, General Contractor JSC “OGCC KazStroyService” (KSS)

carries out a mission of the management of environmental protection (EP) issues. The primary KSS objectives of the EP management include the planning of measures for environment protection and the rational use of natural resources, the organization of maintenance and repair of tools for EP, the regulation of working processes in light of the EP requirements, as well as the monitoring and control of the progress of EP measures.

“KazStroyService” has implemented and operates the Integrated Management System (IMS) based on three international standards: ISO 9001:2008, ISO 14001:2009, OHSAS 18001:2007. They also use the methodological aid «Manual for Environment Protection at JSC “OGCC KazStroyService”. It features the KSS environmental protection

policy, the personnel responsibilities, ecological aspects of effects on components of the environment, the system of production and consumption waste management, environmental measures for the reduction of a negative impact on the environment, the personnel actions in the environmental emergency conditions.

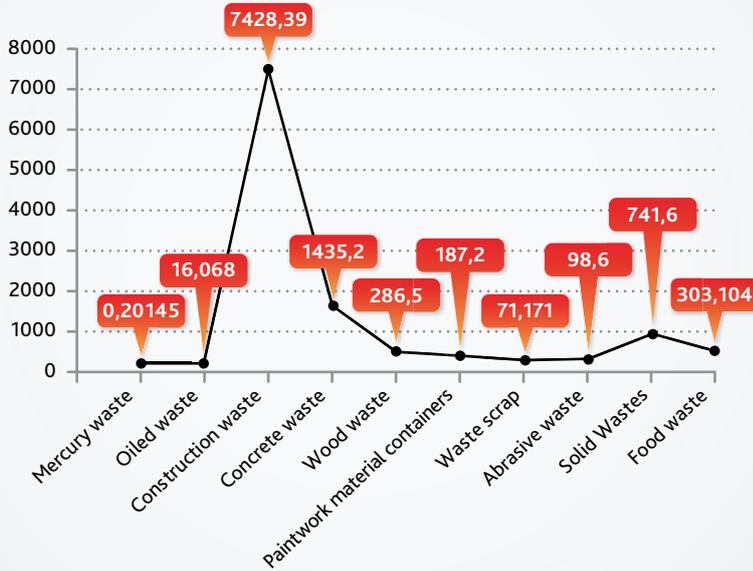
The large-scale construction inevitably results in the production of a large quantity of wastes which have to be sorted out and transferred to specialized organizations for the further maximum safe disposal. For example, in the period of 2013–2016, only from the A-PS-3A construction facility they disposed of wastes as follows: mercury: 0,20145 t, oiled: 16,068 t, construction: 7428,39 t, concrete: 1435,2 t, wood: 286,5 t, paintwork material containers: 187,2 t, waste scrap: 71,171 t, abrasive waste: 98,6 t, solid domestic waste (SDW): 741,6 t, food waste: 303,104 t.

By the way, for the purpose of waste reduction and the rational use of material resources the concrete and wood wastes were transferred to the public for secondary use, profitably for the nature and people. The gratuitous transfer of low-hazard wastes by the company to individuals or legal entities for their needs was carried out within the frame of one of traditional EP measures organized at A-PS-3A. At the same time, they formalized



The process of briefing on environment protection before starting work

WASTES GENERATED AND REMOVED FOR THE LAST 3 YEARS



Awarding of the distinguished employees

the certificates of waste acceptance and transfer signed by the both parties.

Annually on the 5th of June at the CPC-K Expansion Project we celebrate the World Environment Day. Making preparations for this day, at all construction facilities and KSS branches we traditionally conduct months of environment protection, implementing the pre-scheduled measures. A great number of participants gather volunteer clean-ups, coincided with the date, which are organized at the construction facilities. Throughout the year, in

the course of construction and installation operations, among the operating personnel they hold a contest on topic “Environment Protection”, the employees are trained according to program “Waste Management”, at the construction site they control the implementation of EP measures by the engineering and technical personnel. According to the results of the year, on the 5th of June JSC “OGCC KazStroyService” awards certificates of honor and memorable gifts to the active employees.

The purpose of this multifaceted work on environment protection

at the CPC-K Expansion Project is the improvement of personnel culture and knowledge in the EP area, the drawing of attention of all employees engaged in the Project to the necessity of environmental protection and improvement. Each Project participant approaches the compliance with the environmental requirements deliberately and seriously because the nature preservation is in our common interests. ■

by Inzhu Aitmagambetova,
Environmental Engineer
JSC “OGCC KazStroyService”



Conduct of volunteer clean-ups for cleaning territories at the construction facilities of the CPC-K Expansion Project

MR. ARKADY SAVIN, OPERATION AND MAINTENANCE MANAGER, PIPELINE, JOINED CPC MOSCOW OFFICE IN 2000. BUT IN TOTAL HE CAST IN HIS LOT WITH THE PROJECT FOR 25 YEARS.



“The Consortium is my life!”

We hardly managed to “catch” Mr. Savin between his usual business trips. He was introducing his successor to the pipeline facilities visiting all CPC regions. But we were persistent as we really wanted to talk to a witness of the Consortium’s birth, and a top-ranking specialist.

“Mr. Savin, how did you come into profession?”

“I had no other choice as I am not the first oilman in our family. Both my father and mother were oil-industry workers. I was born in Bashkiria, in the city of Ishimbai, oil pioneer for the entire Volga-Ural oil province. The first well there produced oil in 1932. My mother, Ms. Klavdiya Savina, worked as an operator of this well. Her name is stamped on a granite memorial plaque of the “granny rig”, as it is called in Ishimbai that I am very proud of. In 1972, I graduated from the Ufa Oil Institute and was called up for military service in Kazakhstan. I served as a fuel and lubricant service officer, and then I married. Many of my fellow-students went to work in Tyumen; they called me as well. But since we had to have a baby by the end of the service, we decided to stay in my wife’s homeland, in Alma-Ata for some time. We thought that we would

wait a little bit for the child to get stronger, and join our friends. And then this “a little bit” dragged on for 28 years.”

“What did you do in Alma-Ata?”

“At first I worked at Kazgiprogaz Project Institute. I designed pipelines, and then built them at Kazgazstroimontazh, Republican Construction and Installation Trust. Later I was invited to the Committee on Gasification of the Council of Ministers of the Kazakh Soviet Socialist Republic. And in 1992 I joined the Ministry of Energy and Fuel Industry of the Republic of Kazakhstan. It was later transformed into the Ministry of Oil and Gas Industry of the Republic of Kazakhstan. Note that I came to the Ministry in May, and on July 17, the Caspian Pipeline Consortium was established. That is why, during this period we talked only about CPC in our Ministry.”

“The Consortium has been created right in front of your eyes. Tell us, please, how it happened?”

“In 1979, a unique oil and gas field Tengiz was discovered in Atyrau Region of Kazakhstan. We faced a critical problem of oil transportation. According to the development

plan, the field annual production was to be more than 30 million tons. To demonstrate the scope, I will mention just one fact from its history: in mid-1985, at well No. 37 there was a gush of oil and gas from a depth of more than 4 km. A burning belch rose up to more than 200 m. The radius of the fire effect on the environment was about 400 km. The remedial work continued for more than a year. They succeeded in extinguishing the fire only by directional explosion from inside.



Arkady Savin in Kazgiprogaz Project Institute immediately after the graduation and service in the Soviet Army in 1975

The USSR Government decided to build Tengiz-Guryev-Astrakhan-Grozny (TGAG) oil pipeline to deliver Tengiz oil to the oil refinery in Grozny. The oil pipeline was built and put in operation in 1989. It was filled with Kazakhstan oil. And then the Nineties came: collapse of the Soviet Union, first Chechen war. Most of the pipeline was shut down (only the Tengiz-Atyrau section was in operation).

Oman Oil Company was then the advisor of the Government of Kazakhstan on issues related to the Tengiz oil field. It operated in Alma-Ata in cooperation with our Ministry. Among the proposed routes for oil transportation from Tengiz to the world markets, the route through Russia was of priority. We decided to use the idle part of the TGAG oil pipeline as the basis of the project. With that in mind, a tripartite alliance of the Consortium founding countries was created: Kazakhstan, Russia, and Sultanate of Oman (with 33.3 % of shares to each member). According to the agreement, Kazakhstan and Russia gave the Consortium their own assets of the TGAG oil pipeline and the right of transit through their territories, and Oman committed to finance the construction of a new 750 km pipeline from PS Komsomolskaya to the Marine Terminal near Novorossiysk. On July 17, 1992, the Governments of the Republic of Kazakhstan and Sultanate of Oman signed a framework agreement on establishment of the Caspian Pipeline Consortium. A month later Russia acceded to it. A work began on developing basic concepts and policies of the Consortium. Mr. Nazarbaev, President of the Republic of Kazakhstan, made a noticeable contribution to the project development. It must be said that the project was hanging by a single thread several times, especially in 1996 when it became clear that Oman was not able to fulfill its obligations.

Therefore it was decided to invite investments of oil producer companies that had interest in transporting oil by handing over 50 %

of CPC shares to them in exchange for 100 % financing of the new construction, and leaving 50 % of shares with the founding countries. On April 27, 1996, the Protocol on CPC Restructuring was signed. I remember that day very well. There was a warm spring rain falling in Alma-Ata since the morning; and then the bright sun came out. In the Peoples' Friendship Center at the round table, all the project initiators and new shareholders countersigned the structural chart of the Consortium, which is still valid today. An active participant in all these events was Mr. K. M. Kabyldin, current Deputy General Director of Kazakhstan Government Affairs, who remains until now the only person in the Consortium who stood at its origins.

So the uninterrupted financing, designing and construction of the CPC pipeline system began. Of course, there were many unresolved issues, for example, on the missing legislation on foreign exchange financing. However, the leaders of the founding countries, Mr. Nazarbaev and Mr. Yeltsin, provided a strong support to the project: the emerging problems were quickly solved in a prompt manner. Eminent persons in the oil industry from Russia and Kazakhstan contributed a lot to the project. Among them there are Mr. Chernomyrdin, V. S., Mr. Balgimbaev, N. U., Mr. Baikenov, K. K., Mr. Lobaev, A. S., Mr. Shatalov, A. T., Mr. Abdurakhmanov, Z. B., and others."



"Mr. Savin, when did your direct cooperation with CPC commence?"

"In 1998, I started working as CPC Manager in KazTransOil (KTO) that was established in 1997 and was located in Alma-Ata. This organization was then the general contractor for maintenance of the Consortium system in the Kazakhstan part of the project. In the Atyrau Oil Pipeline Department of KTO, a linear production dispatcher service of CPC (CPC LPDS) was established. It was headed by Mr. Ignatiev, N. G., who is currently fully occupied in CPC, too. I was charged with supervision of the linear production dispatcher service operation, and I was almost constantly away on business trips to Atyrau. A section of our Tengiz-Atyrau oil pipeline, the only one that had never stood idle, was far ▶



Remedial works on the oil pipeline insulation replacement in the Republic of Kazakhstan. 2010



With colleagues from the Operations Department. 2001–2003

from perfect technical condition, and required huge labor costs for its maintenance and repair. There were lots of problems on the Atyrau – Russian border segment. Moreover, we had to participate in all project events within the framework of the Initial Construction Phase on the linear portion: displacing oil from the old pipe, replacing all inline valves with ball valves; a huge amount of work was performed to prepare the pipeline for further operation now under CPC. We were thorough in our work. For example, there was such case. After the oil had been displaced from the pipe in the section from Astrakhan to Atyrau (the oil was displaced by water), a large amount of water-oil emulsion with a high content of hydrocarbons remained in the pipe. To conduct the first inline inspection (it was carried out on water), the pipe had to be well cleaned from the residual oil. At the Atyrau Oil Pipeline Department, Croft floatation plant was installed to purify the water-oil emulsion coming from the pipe: it is a special floatation mini-plant for water treatment before discharging it into the city evaporation ponds. So, before putting it into operation, we brought water cleanliness to such a state that one of the engineers poured it into a glass and drank it in order to prove the water purity.”

“When did you come back to Russia?”

“In 2000 it surfaced that KazTransOil was moving to Astana, the new capital of Kazakhstan. I could not leave Alma-Ata for family reasons, and had to resign. I called to Mr. Boris Sviridov, CPC General Operations Manager in Moscow, with whom I was working hand in hand and whom I hold in high respect, to say goodbye. And he says: “Well, come to Moscow! I give you a month to move.” In Moscow, there was the CPC Operations Department just being created. The first oil was to be delivered in a year. I agreed. Honestly, I wanted to go back to my native land. Hence, the Consortium is a project that has changed my life and life of my family. When I went to the international soccer match



Maintenance works on reconstruction of the Scraper Launcher / Receivers in Kazakhstan. Savin A. V. together with Shtin, I. V., Starstroj, LLC Atyrau Branch Manager. 2010

in Luzhniki on the second day after moving (I’m a soccer addict), and 80 thousand people began chanting “Russia! Russia!” in a united impulse, tears welled in my eyes: I have not visited my native land for 28 years! At the same time, I have always thought of my adopted country – the Republic of Kazakhstan, its hospitable people, and nature – with gratitude and tender. I spent the spring of life there, and got many friends!”

“What challenges did you face at the start of your carrier in the Consortium?”

“I joined CPC as a manager for operation and maintenance of the pipeline. The Operations Department in the Moscow office was still under establishment. We began with development of the oil pipeline filling project, which was successfully implemented in 2001 by the first tanker loading. Then there was the first inspection of the whole pipeline segment after commencement of operation, repair and replacement of the initial section of the pipeline in Kazakhstan, the overhaul of the oil pipeline in Russia and Kazakhstan, and many other projects aimed at maintaining the pipeline in proper technical condition. The merits of its first General Directors, Mr. Sviridov, B. V. and Mr. Kim, D. P., in creation and formation of the Operations

Department should not be left unnoticed. Amongst our foreign partners and friends, I would like to emphasize the contribution of Mr. I. McDonald and Mr. D. Fahy. The above-mentioned people created and directed a team of like-minded persons that continues working in CPC. Thanks to them and the created team of professionals, continuous and fail-safe oil transportation was then ensured and is currently ensured. I will make a reference to two figures: the volume of oil pumped through the pipeline has increased from 1 million tons per year in 2001 to 44 million tons in 2016.

During these 17 years in terms of everyday work one can recall a lot of good and not that good memories. Do you see these things? (Mr. Savin is showing notes on the map spread out on the table – Author.) These are

We were so actively strengthening the pipe with repair couplings in the beginning, that at a certain point it was no longer an oil pipeline, but a “coupling-line”

all unauthorized tie-ins. The first tie-in occurred on the New Year’s Eve of 2001–2002, three months after the first tanker was loaded. I can tell you about it.

CPC received a call from the village of Tbilisskaya of Krasnodar Krai: oil was found on a farm field near the oil pipeline at KP 1,275 km. As it turned out, it seeped from a branch of small diameter with the length of several hundred meters illegally welded to our pipe (as it appeared later, these were the collective farmers themselves who did it). This oil contaminated the field, the famous Krasnodar black soil. There was the Sukhoi Log River downhill. It was necessary to take urgent measures to prevent oil from ending up in the river. Mr. Sadovsky, O. A. and I arrived to that place on the first day of the new year of 2002. That year there was unusually lots of

snow in Krasnodar Krai, more than 1.5 m high. It made it very difficult to produce the remedial works. To reach the valve station, a powerful bulldozer cleared the way for emergency machinery. Nevertheless, we removed the tapping very quickly; it was more difficult with the consequences of oil seepage. The CPC delegation was called to the Krai Administration. The Vice-Governor has started blathering on us! You, so-and-so, we are producing grain here, and you spoil our black soil. I must say that we have become unaccustomed to such attitude over the years of work in CPC. We had to ask the official to tone down and remind him that CPC is the same affected party as the owners of the land. The Krai residents are stealing oil from CPC, and they do it blatantly threatening their own lives, but law-enforcement authorities sit on their hands!

The official stopped speaking: he was not prepared for such change of course. In the end, we agreed on collaborative measures in struggle against tappings. We promised that CPC will carry the contaminated soil away to clean it from oil using microorganisms at Krasnodar Krai disposal site. The soil will then be delivered back to the field. The promise was fulfilled. During this business trip we celebrated both Orthodox Christmas and the Russian Old New Year.

By the way, it can be noted as an achievement that no unauthorized tie-in has been detected in

the last three years in the Western region. Even though in the first years of operation it was their main “supplier”. For example, in 2002, 18 illegal tappings out of 23 under CPC accounted for the Western region.

As for the pipelines, I received the pipe in a technical condition which did not meet the requirements of safe operation, especially at the initial segment in Kazakhstan. Here (he is showing a section from Tengiz to Atyrau installed in 1989 – Auth.), the pipe was in a very poor condition. It was fabricated in the last Soviet years, and did not have factory insulation. Film protective coating was applied afield; the application quality left much to be desired. In addition, there were periods when, for various reasons, the electrochemical protection system at this section was completely deactivated. And the Caspian Sea is nearby, a rump wave that running up the pipeline. There was so-called alternate wetting, the sun evaporated water, a great salt content was observed in brackish soils. In addition, the temperature of the pipeline itself was more than 50 °C. All these ▶▶



factors contributed to the rapid growth of corrosion. When the first inline inspection had been completed, several tens of thousands of corrosion defects were detected. At some points, the wall thickness was 20–30 % of the original one, i.e. 70 % of the wall had been already destroyed. We were so actively strengthening the pipe with repair couplings in the beginning, that at a certain point it was no longer an oil pipeline, but a “coupling-line”. In order to make the scheduled repairs in time, the Clock Spring couplings were used to be delivered from America by plane. Once, in order to persuade the Tender Board members of the need for urgent repairs, I deliberately brought from a regular business trip to the Kazakhstan site a piece of insulation with the remainders of corroded iron and slag of a sizeable thickness of the pipe body stuck to the protective film. I wrapped it in a newspaper and brought it to the tender. When they began asking questions on reasonability of repairs, I unfolded the newspaper, put it on the table and said: “This is our pipe.” There were no more questions; a decision to continue the repairs was taken unanimously.

At this point, it is necessary to give proper respect to Mr. D. P. Kim, who was general manager, operations from 2002 to 2006. From the first months of our joint work, he raised a concern, together with the Operations Department of the Eastern

region, with the CPC management and Shareholders of replacing the initial section of the oil pipeline at the 0–116 km section. When he started working, the Operations Department began, as the phrase goes, “to toll the bells”, to raise this issue at all levels without interrupting the repairs.

As a result, in 2006, the Shareholders decided to replace the initial section of the oil pipeline in Kazakhstan

is a normal sound Company, which is developing and expanding its capacity.

But the most important CPC achievement is the people. During this quarter-century I met hundreds of people from different countries, real professionals, many of them became my friends, and made a great contribution to the creation and prosperity of the Consortium. I believe this to be my main achievement over

I was surprised by the system of relations between the management and subordinates, a democratic character of administration, ability to appreciate people

with a longer one, which bypassed the swamping areas. I believe that there is my credit as well. We did not allow a single accident to happen during that dangerous period, which makes me very proud.”

“Mr. Savin, was there anything that surprised you in the Company?”

“Honestly speaking, I was surprised by the system of relations between the management and subordinates, a democratic way of administration, ability to appreciate people. You will not encounter such relationship, which may be sometimes found in Russian realia: “I am the boss, and you are a fool.” Your opinion will always be heard and appreciated. It

the years of work. I am very grateful for the cooperation to everyone with whom I happened to work!

I am sure that the professional team which continues working in the Company will multiply the glorious traditions of the Consortium and win the objectives set by the Shareholders on the project expansion. Let our project, as it was over all these years, serve as a symbol of friendly relations with all countries that created it!

I wish CPC prosperity, and all those who work to be healthy, happy and successful!” ■

Recorded by Ekaterina Krapivko



For the Treasure from Glebovka

AFTER A SWEET PERIOD OF THE BABY'S FIRST SMILE, FIRST STEP, FIRST SPOKEN WORD. PARENTS, ESPECIALLY MOMS, ARE FACED WITH THE MOST DIFFICULT THING: FINDING A DECENT KINDERGARTEN.



BEST IN THE KRAI

Every parent has many requirements and desires with regard to both the kindergarteners and the quality of the child care center itself. It is important for them that the kindergarten has all the facilities, including technical ones, for the comprehensive development of the child. In the village of Glebovskoe near Novorossiysk there is such a kindergarten! It is kindergarten No. 18 named "The Treasure Island".

This unique facility was built from the funds of CPC. The construction was commenced in September 2013, and already in December of the next year the kindergarten was put into operation. And after just half a year "The Treasure Island" was named the best kindergarten in the Krasnodar Krai.

Here everything is well thought out: from the harmoniously designed

children's playground to the indoor premises. And if the CPC employees responsible for this project had not put their hearts, paid so much attention, and invested so much time and efforts, the result could have been quite different. Vladimir Chaikin and Igor Vinogradov, representatives for relations with regional and local authorities, told us about the difficulties which the CPC team had faced during the design and construction of the child care center. Fortunately, all the obstacles were overcome successfully.

Previously in this site there was an abandoned public garden, which was not practically used by the village residents. CPC laid a gas pipeline, built a transformer substation.

SAFE AND ENVIRONMENTALLY FRIENDLY

The Consortium took care of the safety of the inhabitants of

"The Treasure Island". The kindergarten territory is enclosed with a high but at the same time very light and neat fence and is monitored by a security company, which vigilantly keeps an eye on the visitors entering the facility. Employees of the CPC Press Service were allowed to enter the territory only after assurances from Olesya Chistopolova, the kindergarten principal.

On the insistence of the Consortium representatives, the builders kept as many coniferous trees as possible and planted new ones on the children's playground so that the kids had where to hide from the heat on hot summer days. In addition, they built shaded shelters and invented a special mini pool where children can dabble their feet. The sports ground is covered with a safe artificial turf, which does not heat up on hot days, is cold resistant and at the same time is sufficiently soft, protecting the children from injuries. ►►



Olesya Chistopolova: «Our kindergarten is the best in the Krasnodar Krai!»



The ground is decorated with hard-scape – a gift from the construction contractor for the kindergarten’s opening.

Passing the landscaped yard with playhouses and sandpits, we come up to important ancillary facilities – the boiler house ensuring continuous operation of the child care center, autonomous diesel generator, autonomous biological treatment plant. Previously the kindergarten was located in a nearby single-story building. Now this building is sharply discordant with the modern brick building of “The Treasure Island”.

AS IN A SANATORIUM

“If it were not for CPC, there wouldn’t have been the new kindergarten,” thinks Olesya Chistopolova sincerely. “And owing to the tenacity and insistence of Igor Vinogradov, who literally spent all his time at the construction site, very many problems were solved, a lot of important aspects were provided for: the different height of railings for children and adults, the absence of steep descents and ascents on the children’s playground, modern equipment received by the kindergarten to cater for children with disabilities.

“The Treasure Island” is the only kindergarten in Novorossiysk which has its own swimming pool! The pool has a water treatment system specially designed for it. Bathing in the swimming pool is perhaps the most

favorite pastime for the children. Lessons are given by children’s swimming instructors qualified as lifeguards. At the entrance there is a changing room, toilets, shower rooms, hair dryers, and near the pool there is a special pit in the floor for rinsing feet. Everything is safe and reliable.

Children go for swimming wearing bathrobes, slippers, swimming caps and goggles – it is amusing. Visitors, when they see that, ask: “Well, do you have a sanatorium here?” “No,” answer the employees, “It’s a kindergarten built by CPC!”

Then the principal shows us a sterile medical unit with is a procedure room and an isolation unit where a child is admitted in case he/she feels ill and stays there under the continuous care of a nurse.

Then we examine a no less sterile kitchen room, which is equipped with special refrigerating cabinets for vegetables, meat, bread and other food, electric stoves... Right before us, they took delicious freshly cooked rolls out of a huge oven. While still hot, they were immediately delivered to the first floor via a special elevator and given to the children for snack. Few child care centers can boast of such equipment.

ON WEEKDAYS AND HOLIDAYS

The children awoke after the rest-hour, and the kindergarten filled



Olga Ushakova: «The Consortium has been providing assistance to the school for over 15 years. Many thanks to our sponsors!»

with children’s ringing voices. The inhabitants of “The Treasure Island” gladly show us their handicrafts, pictures, toys which are in plenty in the kindergarten. For the opening, the CPC management additionally presented multimedia equipment, as well as fiction literature and materials for playing.

Many things have been made by the hands of kindergarteners and parents. All in all, the kindergarten is attended by 260 children and has 8 groups and 8 educators. According to the new rules, a group with more than 30 children must be assigned three kindergarteners. The kindergarteners not only mentor and educate the children, but also inform the parents about how the day passed with the help of special panels. Each educator invents his/her own style of presenting information. Recently there was a contest for busy boards preparation held among the kindergarteners. These are special wall-mounted boards to which various figures and toys for the development of the child’s fine motor skills are attached. The kids who are already ready for a walk play with busy boards while waiting for their groupmates who have not yet got dressed.

A lot of attention is paid to the preparation for holidays. For example, for the Cosmonautics Day they created a special planetarium, and



information about the solar system, black holes and cosmonauts was communicated to the children with the help of personal computers and multimedia boards, which also appeared in the kindergarten thanks to CPC.

CENTER OF ATTRACTION

One would think that upon graduation from such an unusual kindergarten children may become disappointed when they go to school. But CPC has also taken care of the next stage of their development. For over 15 years, the Consortium has been the patron of general education school No. 31 of Novorossiysk, which is located in the village of Glebovskoe in the neighborhood of "The Treasure Island".

The mini-football field with an artificial turf – a gift from CPC – is a pride of the school principal, Olga Ushakova, and the physical training teacher, Yury Agamalov. This sports ground is a center of attraction not only for the young school football players, but also for sportspersons of the whole district. In the field they play friendly matches with other schools. Here they also hold an annual football league among

adults with the participation of high school students.

"If there is a good base, children exercise with pleasure," comments Yury Agamalov.

Apart from the football field, the school is proud of the high-level equipment of its educational base, in particular, the informatics classroom which is furnished with all the necessary computer equipment, including equipment for distance learning. Here they regularly hold webinars in order to prepare the children for examinations. All classrooms are fitted with interactive boards. In addition to educational equipment, CPC has installed split systems in the classrooms so that the children feel comfortable on hot summer days, purchased new furniture for the junior school children, equipped the school assembly hall and the chemistry classroom, replaced the windows with metal-plastic ones, installed special furniture for the chemistry and physics classrooms... The list is endless.

Traditionally, the children receive New Year gifts from CPC, they look forward to something delicious and stuffed toys. Many parents of



Yury Agamalov: «The children adore the football field – a gift from CPC!»

pupils work at CPC, and certainly the support provided by the Company to the school is very important for them.

And I was overwhelmed with a sense of pride for CPC when I heard words of gratitude from teachers, kindergarteners and children. Not every capital preschool or school institution can boast of such technical equipment and the patron's commitment to providing continuous and concrete assistance. ■

by Anna Volina



To See the Beauty

THE COMPANY HELD THE PHOTOGRAPHY COMPETITION "PHOTOVISION OF THE EMPLOYEES OF CPC – 2017".

Of the six nominations submitted, "Ecology" turned out to be a popular one, as opposed to the "People of CPC" nomination that was almost ignored. The remaining topics were of equal interest to the contestants.

To evaluate the works, it was decided to invite some eminent photographers.

This is a member of the Creative Union of Artists of Russia, the laureate of the national prize of the Union of Journalists of Russia "Golden Eye" Sergey Hovorostov. As a photographer-traveller, he visited more than sixty countries around the world and participated in seven Arctic and two Antarctic expeditions. Sergey was lucky enough to photograph a polar bear on the North Pole, for which he was included in the Guinness Book of Records.

Alexey Nagaev is also a member of the Creative Union of Artists of Russia and a member of the Association of Polar Explorers of Russia. He also participated in numerous expeditions to the Arctic and the Antarctic. Alexey's field of professional activity is museology and history of art.

A young but already well-known photographer and cameraman



Olga Savchenko. "Simply ice"

Yevgeny Musin also participated in the work of jury. He worked on Karen Shakhnazarov's film "The White Tiger", and made the TV series "Scoundrel", "Love Lines", and "In One Breath". He is also a director-operator of commercials.

Among the judges, there was the CPC Deputy Director General on RF Government Relations Mikhail Grishanov, who has a direct relationship to photography. He participated in numerous expeditions to the South and North Poles, as well as to Latin America. Paulsen Publishing House released an album on the polar theme, in which there is a series of photographs taken by Mikhail in the Arctic and the Antarctic.



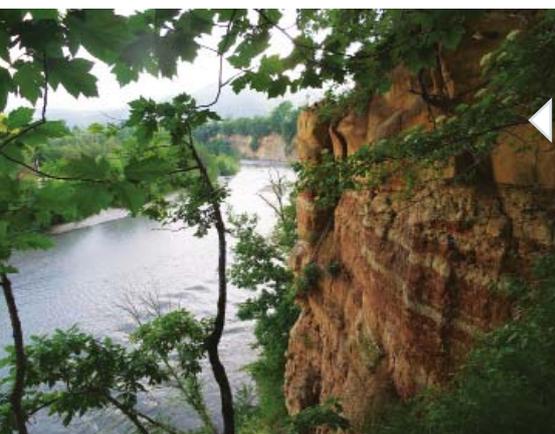
Alexey Mingareev. "Wildlife at PS"

The submission was closed on June 1 of this year, and for two and a half weeks the jury discussed the merits of each photograph. Some of the works were so good that it was decided to award several prizes.

The Grand Prix of the competition was received by Olga Savchenko, the oil transport department manager, for the work "Simply Ice".

A special nomination of "The Best Photo Series" was awarded to the Deputy Chief Manager for HSE Alexey Mingareev for a series of works "Wildlife at PS".

Overall places were as follows.

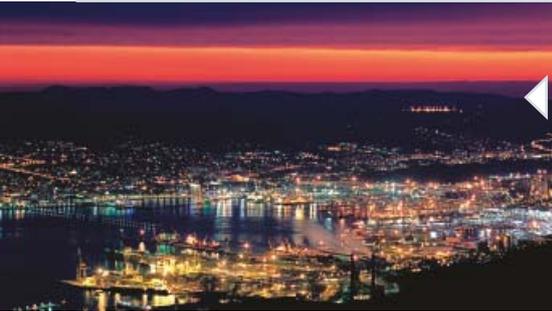


NOMINATION "ECOLOGY AROUND US"

I	"River Belaya in the Spring"	Vyacheslav Semikov
II	"A Family of Coots"	Vyacheslav Semikov
II	"Rhinoceros Beetle"	Nikolay Kravchenko
III	"The Web"	Mikhail Glagkikh
III	"Sparrows in the Marfo-Mariinsky Convent"	Olga Savchenko

NOMINATION "CPC FACILITIES"

I	"Sunrise. Tank Farm"	Nikolay Krupskiy
II	"A-PS-4A"	Oleg Kazakov
II	"PS-4"	Alexander Ryabets
III	"Exercises at PS Kropotkinskaya"	Alexey Mingareev
III	"Morning. Haze. Calm"	Roman Smolnyakov



NOMINATION "TOURIST ATTRACTIONS"

I	"The Night Novorossiysk"	Mikhail Gladkikh
II	"The Face of the City"	Stanislav Sizikov
III	"Sochi"	Yuri Tribulkin
III	"The Old Bridge"	Alexander Ryabets

NOMINATION "SEASONS"

I	"Early Morning on the River"	Yulia Borisova
II	"Winter Tree"	Alexander Ryabets
II	"The Last Snow of March"	Yulia Borisova
III	"Crocuses"	Anna Borisova



NOMINATION "FELLOW COUNTRYMEN"

I	"ChB" (Black & White)	Yuri Tribulkin
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The Moscow and regional offices held solemn awarding ceremonies for the winners with certificates and ozon.ru gift cards.

Presenting the prizes, the General Director of the CPC, Mr. Nikolay Gorban, thanked everyone for participating in the contest.

"What you do is very important, it shows that we have a team that not only cares about the work, but also strives for it to be beautiful. The ability to notice small details is a perfect quality when you see what's going on around you. I hope that you will keep responding to such contests. For our part, we will always be waiting for your initiatives and be ready to support them, because that's what is making us stronger as a team," said Nikolay Gorban.

For their part, the Press Service and the Protocol Department are

thankful to everyone for the participation. We will be very grateful for the feedback. Your remarks and suggestions on organizing and holding such contests are very important to us. Contact us at: Anna Volina – Anna.Volina@cpcpipe.ru, Nadezhda Cherednikova – Nadezhda.Cherednikova@cpcpipe.ru, Darya Margelova – Darya.Margelova@cpcpipe.ru. ■

Press-service of the CPC



Little-Known Pages of Alsib (Alaska-Siberia Air Route)



FOLLOWING THE RESULTS OF THE TRIPARTITE CONFERENCE IN MOSCOW HELD IN THE AUTUMN OF 1941, THE ANTI-HITLER COALITION ALLIES WERE OBLIGED TO DELIVER ALMOST 20 THOUSANDS OF FIGHTERS, BOMBERS, AND MILITARY AIRBORNE TRANSPORTERS TO THE USSR.

However, it became crystal clear at once: such a huge amount of aircraft could not be reliably and quickly delivered via Murmansk or Iran. An absolutely new route was required. And it was created: a new air route stretching out for 6.5 thousand km from Fairbanks, Alaska, to Krasnoyarsk, Siberia. It was named Alsib, and it was deployed just within 10 months – by the autumn of 1942. To do this, there were 26 air fields built and rebuilt in the Soviet Union, about 300 buildings and structures erected, and dedicated aircraft equipment and materials delivered.

BRIDGE BETWEEN THE CONTINENTS

The air bridge created was inaccessible to the enemy; however, the ferry flights in severe natural climatic conditions required the Soviet pilots to demonstrate a true heroism. Flights over the mountains, tundra, and taiga were conducted with inaccurate maps and with compasses and radio communications failed because of magnetic storms.

Winged machines were waiting in the lines, so the flights did not stop even at temperatures below minus 60 degrees. The frost turned the oil into stone; the rubber and hoses burst, the hydraulic controls broke down. Only the first year of Alsib operation brought out almost sixty air accidents and air crashes. The stories inspired by Jack London's short novels were rarely uncommon: the survived pilots from the fallen airplanes tied the skies to their knees and then, putting the overshoes onto their hands, they were crawling to their brother-soldiers on hands and knees for several days through the snowy desert.

Over the sea, in inter-American region, there were challenging events taking place as well. Taking off from the Great Falls airbase in Montana and making an intermediate landing in Canada, the US Air Force pilots landed on the unpaved runway of the Fairbanks, Alaska: the true "end of the world", where even the aviation fuel had to be delivered by dog sleds.

FUEL FOR VICTORY

Early in the year of 1942, the American command came to the conclusion that in order to increase the defense capacity and fulfill obligations towards the allies from Canada, it was necessary to build a road, and also to lay a fuel pipeline to Fairbanks.

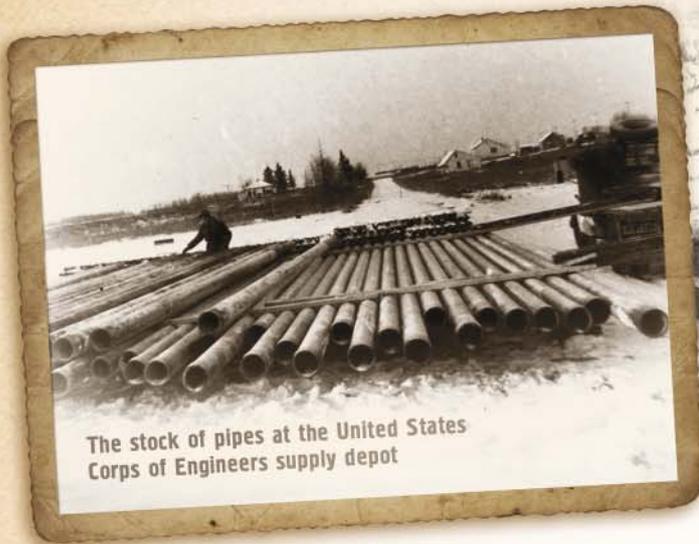
The thing is that in the Northwest Territories of Canada near the city of Norman-Wells, there was a hydrocarbon field already discovered. It was located only 120 km away from the Arctic Circle. The raw materials from that field came directly to a small oil refinery which provided fuel only to local hunters and gold diggers. However, certain investments could significantly increase the amount of oil produced there.

In April 1942, the Imperial Oil of Canada Management, holding rights for the Norman Wells oilfields, met



Soviet technicians are inspecting the fighter delivered from the USA





The stock of pipes at the United States Corps of Engineers supply depot

the US command representatives in Washington. The parties signed a short document consisting of only three paragraphs. Firstly, it was planned to increase the oil production at Norman-Wells from 800 to 3 thousand barrels per day. Secondly, to build an oil refinery in Whitehorse. And thirdly, to lay a pipeline between the oilfield and the refinery of about 1 thousand km, and the fuel line of approximately the same length to Fairbanks.

In May of 1942, Imperial Oil of Canada signed a contract under which it committed to commission nine new wells in Norman Wells and build an additional tank farm.

"THIS IS NO PICNIC!"

It was immediately decided that civil contractors would be in charge of oil infrastructure, and the army would be in charge of equipment and manpower delivery to the construction site.

The recruiters did not hide the fact that people would have to work in extreme natural and climatic conditions, beyond the boom. For instance, the recruitment advertisement said: "This is no picnic! Working and living conditions on this job are as difficult as those encountered on any construction job ever done in the United States or foreign territory. Men hired for this job will be required to work

and live under the most extreme conditions imaginable. Temperature will range from +30 °C above zero to -60 °C below zero. Men will have to fight swamps, rivers, ice and cold. Mosquitos, flies, and gnats will not only be annoying but will cause bodily harm. If you are not prepared to work under these and similar conditions, DO NOT APPLY."

In the summer of 1942, the US engineering troops began arriving to the final destination of the railway, almost 500 km north of Edmonton, in the Canadian province of Alberta. From there they had a long journey to Norman-Wells along the rivers and lakes, where the construction of a small town for thousands of builders had begun. The military was in a hurry to deliver the bulk of the goods before the waterways freeze up. When cold weather came, the equipment and pipes were transported by trucks on winter roads and, if the snow cover allowed, by trains made of sleds which were pulled by caterpillar tractors. The military aviation was actively involved in the transportation of goods.

Prior to start constructing the pipeline, the workers built a temporary road along the future route, so that it would be easier to transport people and equipment to the construction sites. The terrain was mostly adverse: Bulldozers made their way through dense taiga woods, they sank into



The pipeline construction sometimes had to be conducted at the temperature of minus 60 °C

swamps. In order to avoid the melting of the permafrost soils after removal of the upper layer, they were protected with a pillow of gravel, and in particularly difficult cases, planking was made of transversely fallen trees.

BEYOND THE BOOM

In the summer of 1943, the installation of the linear part of the pipeline began. To speed up the work, the construction was carried out simultaneously from the two ends.

Due to the fact that the oil from the Norman Wells field was of a very high quality and maintained fluidity even in severe frosts, the pipe was laid open directly onto the ground.

About 15 thousand people were employed in the construction of the pipeline in Canada and Alaska. The recruitment advertisement did not blacken the picture. The conditions were really heavy: more than half of the workers were unable to finalize their nine-month contracts despite the progressive system of remuneration, high bonuses, and postponement from the army.

However, despite all the difficulties, the last joint was welded in mid-February of 1944. The pipeline and the air bridge to the USSR worked smoothly until the end of the war. ■

by Pavel Kretov

A Country of Three Seasons

IN WHAT COUNTRY THE HEIR TO THE THRONE ABDICATED THE CROWN FOR THE LOVE OF A RUSSIAN GIRL? IN WHAT COUNTRY THE NATIONAL ANTHEM WAS WRITTEN BY A RUSSIAN COMPOSER? AND THE CEREMONIAL MILITARY UNIFORM WAS COPIED FROM THE UNIFORM OF THE RUSSIAN IMPERIAL ARMY? CERTAINLY, THIS IS THAILAND!

Wat Phra. Reclining Buddha



Royal Palace Guards



Cats – eternal keepers of serenity

Sukhothai, Chiang Mai and Chiang Rai, you will be welcomed by Phuket and Samui airports or the Hua Hin resort. However, I highly recommend that you devote several days to visiting the main holy places.

AT THE MERCY OF SPIRITS

Here are a few words about the country's traditions information about which you might not find in guidebooks.

The Thais respect, believe in and are afraid of spirits; hence, many superstitions are associated with them. There is a so-called spirit house where live the souls of people who had inhabited this place long before the house was built. The house owners regularly give offerings and light scented candles to placate and appease the spirits.

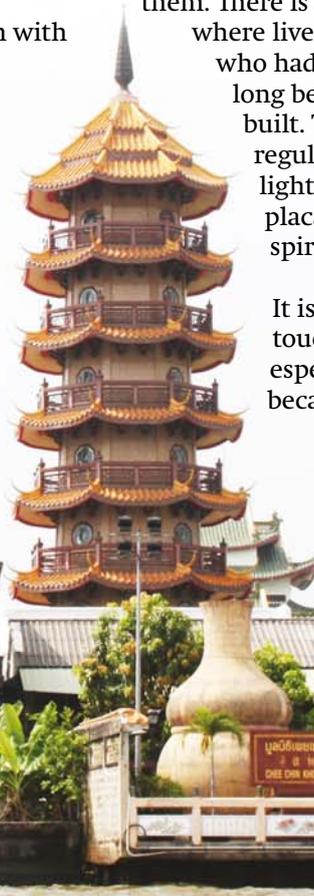
It is not advisable to touch the head of a Thai, especially of a child, because it is believed that

Last October the country suffered a great loss – Thai King Bhumibol Adulyadej Rama IX of the Chakri Dynasty, a legendary and wise ruler who ascended the throne in 1946, died. The country's government declared one year of mourning. The Thais sincerely mourn for their beloved king who will be succeeded by his only heir, 63-year-old Prince Maha Vajiralongkorn.

When traveling to Thailand, it is necessary to show respect for the memory of the king and by no means speak of the royal family mockingly

or with evil intent. Otherwise, you may face up to 15-year imprisonment in a Thai jail. Remember the smashing hit Bangkok Hilton with Nicole Kidman...

You can get to the country either by a direct flight from Moscow, Yekaterinburg, Vladivostok or a flight with connections. A direct flight from Moscow will take 8–9 hours. If you intend to spend your time only on the beach and forego sightseeing in Bangkok,



this is where Spirit Kwan, a very nervous and irritable subject, resides. He may find any touch offensive and leave the owner's head. And if you enter the house of a Thai, please do not step on the threshold and leave your shoes outside, otherwise the spirits can get angry.

An unintentional and all the more so an intentional demonstration of a foot is considered to be a very deep insult here. Legend has it that the man who attempted to kill the Buddha opened the door with his foot, and so the first thing the Buddha saw was the killer's foot. Therefore, be careful when entering temples, take off your shoes, sit onto all fours or tuck your legs under yourself, and by no means point your feet at the Buddha.

LUCKY COLOR

Before leaving for work, the Thai girls dress themselves according to the color of the day. Each day is assigned its own color: Monday, yellow; Tuesday, pink; Wednesday,

green; Thursday, orange; Friday, blue; Saturday, violet; Sunday, red. Moreover, the Thais believe that colors are assigned to days of week for a good reason, and therefore they attach great importance to that. It is believed that the color of the day on which you were born is your lucky color that brings good luck and has a positive effect on your health and on your life in general.

There is a taboo here on visiting a hairdressing salon on Wednesdays. It is believed that any procedures with hair on this day may get you into a big trouble. The Thais also do not cut nails in the evening or night time because they are afraid that they may become wicked due to that.

When you start talking to a Thai, whether familiar or not, you can hear a strange and, at first sight, not very polite question: «Pai nai?» («Where are you going?»). The matter is that in Thailand it is not customary to ask: «How are you doing?», but asking: «Where are you going?» is OK.



The Thais respect and observe their traditions. National dances at a temple

RUSSIAN MOTIVES

Well, now here are some historical facts that will answer the questions posed at the beginning of the article.

In the late 19th and early 20th centuries King of Thailand Chulalongkorn Rama V (a son of King Mongkut Rama IV, known to us from the Anna and the King movie) was on very friendly terms with the Russian Imperial family, he hosted Nicholas II and paid a one-week visit to Moscow and St. Petersburg. The king attended a parade of Russian army regiments in Tsarskoye Selo. He liked the Imperial Guard uniform so much that after returning home he ordered to sew a similar uniform for his Royal Guard. In order to see a march and military department of guardsmen similar to that in the times of the Russian Imperial Army you should visit the Royal Palace in Bangkok on the banks of the Chao Phraya River. The music of the national anthem of Thailand was composed by the Russian composer Pyotr Shchurovsky »



Traditional ground transport tuk-tuk



Traditional water transport longboard



in 1902. Notwithstanding the fact that the anthem's lyrics were changed in 1939, the music has remained unchanged.

Chulalongkorn Rama V sent his youngest son, Prince Chakrabongse, to Russia where he studied for eight years, graduated from the Corps of Pages and the General Staff Academy and received the rank of Colonel of the Russian Army, having become the first Siamese who learned the



Siamese Prince Chakrabongse and Ekaterina Desnitskaya

Russian language and got to know the Russian culture. During this trip Prince Chakrabongse fell in love with a Russian girl, Ekaterina Desnitskaya, and took her to Siam. For representatives of the royal

dynasty, marriage with a foreigner means a voluntary abdication of the throne. Thus, Prince Chakrabongse was not destined to become a king. The story of this love was described by Konstantin Paustovsky in his book «Story of a Life».

TREASURES OF BANGKOK

Apart from beach recreation, I highly recommend visiting Bangkok. The name of this city is listed in the Guinness Book of Records as the longest city name in the world. It is translated as «the city of angels, the great city, the eternal jewel city, the impregnable city of God Indra, the grand capital of the world endowed with nine precious gems, the happy city, abounding in an enormous Royal Palace that resembles the heavenly abode where reigns the reincarnated god, a city given by Indra and built by Vishvakarma».

The key places of interest are: certainly, the Royal Palace where the most esteemed Buddhist relic – the Emerald Buddha – is stored; the Wat Phra Kaew Temple and the Wat Pho Temple near the Royal Palace where you can see the statue of the Reclining Buddha; the Temple of the Rising Sun; the Golden Mountain Temple; the Marble Temple. It is a must to take a boat trip along the khlongs, as canals running through

the entire city are called. And I recommend that you take a ride not on a tourist boat but on a river taxi together with Thai schoolchildren, office employees and Buddhist monks. You will get much more impressions.

Unfortunately, the original trades and souvenirs are «washed away» from the country year after year. Globalization bears down on small tradesmen. Perhaps, the Chatuchak market is one of the few places in the capital where one can find souvenirs, paintings, and handcrafted items from local craftsmen.

70 km from Bangkok, there is the city of Ayutthaya, the capital of the same name kingdom that was there before Siam. This city with about 1 million population had been considered the largest city on earth before it was destroyed by the Burmese army in 1767. You can get there with a guided tour or take a city taxi if you like to travel by yourself.

AT ONE WITH HISTORY

To gain a deeper insight into the country and its people, you should go northwards from Bangkok to Sukhothai, the capital of the medieval Kingdom of Sukhothai in the 13th and 14th centuries.

In the 13th century, the city was destroyed by the Burmese. It was only after a thorough restoration in 1988 that it was opened for visitors as a historical park with many temples and natural beauties, and in 1991 the park was included in the UNESCO World Heritage



List. There are caves and waterfalls, as well as many Buddhist temple complexes. I recommend visiting the park closer to the sunset time. Tourist groups leave, and you remain at one with history, nature and yourself.

Well, the next stops are farther, higher and higher in the north of the country. There you are awaited by two perfectly preserved historical cities, Chiang Mai and Chiang Rai. The latter is an exit to the Golden Triangle. It is the place where the borders of three states – Thailand, Myanmar and Laos – come together; a visa is not required for crossing them. You leave your passport at the border as security and get in exchange a paper with a permit to stay in another state for no more



Royal Palace – the residence of the King of Thailand

Temple or Wat Rong Khun, which resembles a cake made of the lightest meringue.

HOT, VERY VERY HOT!..

The Thais think that they have three seasons: hot, very hot, and very very hot! So, when is it better to plan your trip?

The peak tourist season is considered to be from November to February. In these months, temperatures during a day reach 32–35 °C, and in the evening, a comfortable 25 °C.

The «very very hot season» lasts from February to June, according to the Thai classification. The streets become stuffy and humid, it is difficult to breathe. Especially in the cities with high air pollution levels.

From midsummer to November there are tropical rains. They can be

quite short, but very heavy. During 10–15 minutes, it is impossible to go out – there is a wall of water, and in 5–10 minutes there is no trace of the heavy rain left.

Though, in recent years the seasons have not been so marked. Before buying tickets and booking a hotel check the weather forecast on a website and take into account recommendations of tour operators. Indeed, while there is a shining sun and cloudless sky in Phuket, in Samui there can be monsoons in this period.

...Now that the key places of interest have been seen, you can go to the sea: to the tourist island of Phuket, joyful and loud, or to the calmer Samui, or small quiet islands where one can get only by boat and where electricity is on only till 10 pm. The choice is yours! ■

by Anna Volina



White Temple in Chiang Rai

than 8 hours (it was so a few years ago, but it's better to check this before the trip).

After crossing the border with Myanmar, you get to a settlement where women wearing lots of rings on their necks live. But it's a different story. And certainly it is just a must to visit the recently built White



Saving Together

OUR TOMORROW STARTS TODAY, THAT IS WHY WE NEED TO TAKE CARE OF OUR FUTURE WELL IN ADVANCE. ONLY THEN UNPLEASANT SURPRISES CAN BE AVOIDED. SPECIALISTS OF SAFMAR, NON-STATE PENSION FUND, KNOW WELL ENOUGH HOW THE EMPLOYER MAY HELP ITS STAFF MEMBER TO SAVE UP.


САФМАР

 пенсионный
фонд


Irina Aleyeva, "Tomorrow starts today"

schemes. What has triggered such practice, and will this become a trend in formation of the fringe benefits for the employees?

Today in Russia there are about 75 million of actively working people, around 5.5 million of which participate in the non-state pension provision. They are mostly the clients of the corporate pension schemes. Their number has been on the rise over the last years, becoming slower in 2016. However, by the projections of experts, a new surge of interest to the corporate pension schemes is expected from employers. There is a steady demand for them from international companies operating in Russia. They often want to bring the benefits set for the employees of the Russian subdivision

their employees on completing their professional life.

PRACTICES IN RUSSIA

According to a review of the corporate pension schemes in Russia that was conducted by PricewaterhouseCoopers, one of the largest consulting firm, the corporate pension scheme has been already implemented in 41 % out of 114 respondent companies, and another 13 % were going to introduce it in the short term.

Most employees are increasingly deciding for making pension savings jointly with the employer. "Will you personally join a corporate pension program if your employer implements it in the nearest future?" the sociologists of the Russian State Social

In Russia, in addition to compulsory pension insurance there are also non-state pension schemes. The first is when you arrange for your funded pension under the state pension scheme. We have detailed this issue in September edition of our magazine. Now we are going to talk about voluntary savings, or more precisely, corporate pension schemes, one of which is used in CPC-R.

FUTURE PENSION LIFE: WHO IS IN CHARGE?

Over the last few months, several large Russian companies have announced the launch and extension of the corporate pension

A corporate program is an optimal strategy in terms of long-term savings: saving up little by little, you can pile up a fortune

in line with the benefits applied in the headquarters and other offices, where corporate pensions are an integral part of the fringe benefits provided to personnel.

Along with that, socially responsible companies headquartered in big cities take an interest in such plans and those who demonstrate their responsibility for ensuring an adequate standard of living for

University asked the Russians. 46 % replied "rather yes", another 15 % replied "yes". According to the same research, people are ready to place up to 7.4 % of their wage to their own savings account. Over half of the respondents are sure that the corporate pension provision should be a part of the fringe benefits in any organization, since it is a social commitment of the employer.

Therefore, many companies are more often thinking about implementing their own corporate pension plans. It is both a tool to increase HR brand value, a way of long-term motivation of the employees, and an arm in a struggle for skilled workers. Such program is also a means for employees to save money for retirement without much effort, and confidence in the employer.

OPTIMAL STRATEGY

Employees of enterprises can make contributions jointly with the employer: It has recently become the most frequent option of the corporate pension schemes. A non-state pension fund, i.e. the administrator of the program, makes pension investments, which brings additional income to the savers.

How does the corporate pension scheme work in CPC-R? In the Caspian Pipeline Consortium-R,

the corporate pension program has been in effect since 2009. The employees join the program two years after they have got an employment in the Company. Every three months the Company transfers corporate pension contributions to the Non-State Pension Fund in favor of the program members. The amount of the corporate pension contribution depends on the employment period of each member in the Company and ranges from 3 to 5 % of his/her basic salary. SAFMAR, the Non-State Pension Fund in Moscow, acts as the administrator.

In addition to the corporate pension program, CPC-R employees have the opportunity to make voluntary contributions to their personal pension accounts with NSPF SAFMAR. If the amount of the voluntary contribution of an employee is equal to or exceeds 4 % of his/her basic salary, the Company additionally increases its contribution by 1 %.

The Corporate Pension Program is a set of activities developed individually for each company with regard to its needs, potential and specifics. Such program allows for combining present-day social policy, effective financial and personnel management, and tax mitigation. In most cases, a non-state pension fund acts as the administrator of the corporate pension programs.

The corporate pension program is the optimal strategy in terms of long-term savings: saving little by little, and pile up a fortune over long run. ■

*by Irina Aleyeva,
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Why do we need a corporate pension scheme?



Convenient savings tool



Tax exemptions



Favorable terms of service



Caspian Pipeline Consortium: a time-tested international project



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Atyrau is the oil capital of the Republic of Kazakhstan. Here you can find the office of the Eastern Region of the Consortium. The CPC Press Service would like to share with you some images of this modern beautiful city that is preserving its national traditions and historical memory