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"Deeds are valued by their goals. The higher is the goal, the greater is the deed."

Anton Chekhov





DEAR COLLEAGUES, WITH ALL MY SOUL, I WISH YOU A HAPPY UPCOMING NEW YEAR!

THE DEPARTING YEAR WAS ANYTHING BUT SIMPLE FOR THE CONSORTIUM, AS EVIDENCED BY THE IMPLEMENTATION OF THE FINAL PHASE OF THE EXPANSION PROJECT.

The most important events of 2017, i.e. the commissioning of five new pump stations: A-PS-4A and A-PS-5A in the Astrakhan Region, PS-8 in the Krasnodar Krai, PS-5 in the Stavropol Krai, and A-PS-3A in Kazakhstan, have already become things of the past.

In December 2017, PS-2, the last Expansion Project station, was put into commercial operation in Kalmykia, and as a result the CPC pipeline system reached its design capacity of 67 million tons of oil per year.

It is important to note the seamless interaction between the specialists involved in the Expansion Project, the construction contractors and the CPC Operations Department, which allowed for all tasks to be accomplished successfully and in compliance with the highest health, safety and environment standards through to the completion of the project.

We will remember 2017 for the outstanding operational records set during the year: in August, we hit a milestone of half a billion tons of crude oil loaded at the CPC Marine Terminal. Already in October 2017, CPC surpassed the total amount loaded during the previous year of 44.3 million tons. Thanks to the well-coordinated work of our shippers and the Consortium personnel, a new monthly loading record of over 5 million tons was achieved in November at the Marine Terminal, and by the end of the year we expect to reach a level of 55 million tons of oil.

The key asset of the Consortium is a professional, close-knit team who always do their best, fulfill all plans, keep to all schedules, and strictly observe high health and safety standards. I am sure that each of you have made your personal achievements, having risen to a new level of professionalism, made an important decision in your life, and having done something good that has made the life of your loved ones better.

I hope that the New Year 2018 will be no less interesting and rich in events. I wish all of you well, success in your work, peace, good health, personal well-being, happiness in your family life and that all your plans come true! And, of course, I wish you a Merry Christmas and a Happy New Year with your families and friends!

> by Nikolay Gorban, General Director, Caspian Pipeline Consortium





DEAR COLLEAGUES, DEAR FRIENDS,
ANOTHER YEAR OF OUR FRUITFUL COOPERATION IS NEARLY OVER, THE YEAR, WHICH WILL
STAND OUT IN PARTICULAR AS THE YEAR OF COMPLETION OF A LARGE-SCALE PROJECT TO
EXPAND TENGIZ – NOVOROSSIYSK PIPELINE SYSTEM.

Strenuous work and well-thought strategy implemented by CPC Management and team allowed, irrespective of all difficulties, to achieve the initially designed-in level, and today we proudly proclaim that: the target was reached. The Consortium is currently capable of pumping up to 67 M tons of crude oil per annum.

In addition to the direct effect on the pipeline and oil industry, CPC Expansion Project implementation provided for development in a variety of ways, having formed a unique experience of international cooperation and operation interaction of lead oil companies from various countries. The most state-of-the-art technologies and equipment were used in the course of work, international standards of engineering, management, construction, labor safety and environmental protection were applied.

The Expansion Project participants demonstrated high level of social responsibility, made a notable contribution to the development of the common infrastructure in the Regions crossed by CPC crude pipeline.

Much was done in terms of support to and development of health care, education, culture and sports. In total, under the Expansion Project over 1.5 B Rubles in Russia and over 3.7 B Tenge in Kazakhstan were allocated to social programs and projects.

This is our joint achievement and we are justifiably proud of it. However, everybody working in the pipeline transport knows: Completion of any project is a start line for a big and solid piece of work.

Operating processes should be perfected, operation and environmental

safety of the facilities should be ensured, active participation in the social and economic development of the Regions should continue.

And, of course, we should think about further prospects. We cleared a new height – and we explore new horizons of possibilities and tasks, which we are to cope with together.

With all my heart, I wish the entire Consortium's team, its Management and Shareholders success and progress. Let your efforts and enthusiasm, your creative labor in 2018 be realized in new solid results, ensure steady progressive development and prosperity of our countries!

Happy New Year! ■

by Nikolai Tokarev, President of Transneft, PJSC



Success Achieved in the Year of Ecology

THE YEAR 2017 SAW FOR THE FIRST TIME THE WORLD WILDLIFE FUND (WWF) AND THE MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT OF RUSSIA INCLUDE THE CASPIAN PIPELINE CONSORTIUM INTO THE ENVIRONMENTAL RESPONSIBILITY RATING OF GAS AND OIL COMPANIES.

The first appearance of the international company in the rating was a success: CPC immediately turned to be among the best three enterprises in Russia in terms of the environmental impact, being just a little behind the Sakhalin projects only.

Experts, too, highly appreciated the environmental management system currently employed in CPC. The Consortium gained the same number of points as Transneft, a world's largest oil transportation company.

The annual environmental responsibility rating of gas and oil companies has been published every year since 2014. The parties engaged in compiling the rating are representatives of the Ministry of Natural Resources and Environment of Russia, the World Wildlife Fund together with CREON Energy, an advisory group. In total, activities of 22 companies were under assessment in 2017.

The rating managers point out that it contributes to improving quality of environmental risk management and to reducing environmental impacts of the oil and gas industry.

by Pavel Kretov





EXPANSION PROJECT





Historical Event in Kazakhstan

CPC COMMISSIONED ALL EXPANSION PROJECT FACILITIES IN KAZAKHSTAN.

On October 12, 2017, the Caspian Pipeline Consortium completed entirely the work within the Expansion Project at Tengiz-Novorossiysk Oil Pipeline System in the Republic of Kazakhstan.

IN FESTIVE CLIMATE

The last of the Consortium's oil pump stations built in Kazakhstan, A-PS-3A, was commissioned in the atmosphere of festivity. The ceremony saw the presence of CPC General Director Nikolay Gorban, Akim of the Atyrau Region Nurlan Nogayev, Deputy Minister of Energy of the Republic of Kazakhstan Gani Sadibekov, Executive Vice President of KazMunaiGas for oil transportation

Nurtas Shmanov and other representatives of CPC shareholder companies. The historical event was covered by central and regional mass media of Kazakhstan; a direct coverage of this showy event was arranged by the Atyrau TV.

General Director of the Caspian Pipeline Consortium Nikolay Gorban stated in his speech that just a short time was left until the entire completion of the CPC Expansion Project that had reached its final lap this year.

"In May, we commissioned all CPC facilities in the Astrakhan Region. In August, the expansion project was completed in the Krasnodar Krai and the Stavropol Krai; and now, in

the Atyrau Region, we are commissioning A-PS-3A, which will end up the expansion project in Kazakhstan", he reminded.

FROM OCTOBER UNTIL OCTOBER

It is symbolic that the construction of the Expansion Project facilities in Kazakhstan started exactly six years ago, in October 2011.

Within the Project, the contractors replaced a 88-km segment of the oil pipeline, refurbished PS Atyrau and PS Tengiz, constructed the two new pump stations – A-PS-4 and A-PS-3A, assembled the external power supply facilities, and laid access roads.



CPC General Director Nikolay Gorban stressed that all facilities had been constructed with high quality, in spite of challenging work conditions that had happened sometimes. We successfully overcame difficulties caused by climatic conditions of winter period and the state of soils. To ensure safe and reliable PS operation, changes were made in the design. The General Director expressed his gratitude to the companies which were engaged in construction of the CPC Expansion Project facilities in Kazakhstan -KazStroyService, PromStroyEnergo, Telvent Energia S.A., Honeywell-Automation Controls LLP, etc.

BASED ON HIGH TECHNOLOGIES

A-PS-3A has been constructed using advanced technologies, and complies with all requirements for safety and reliability demanded from all facilities in the gas and oil industry. The station is equipped with the state-of-the-art equipment from global manufacturers, with an extremely high level of automation.

The mainline pump station comprises four electric motor driven pump units, with installed mud strainers, pressure control unit, automated foam firefighting and pipeline surge relief systems (SRS).

Accommodation camp for 80 persons was built to host the operations personnel. An access road 8.5 km long was laid. A-PS-4 and A-PS-3A



external power supply is assured through two 224,5 km long new constructed overhead power lines and two sub-stations.

FOR THE BENEFIT OF THE REGION...

Akim of the Atyrau Region Nurlan Nogayev said that the region welcomed the development of the oil transportation company.

"CPC has everything required for successful advancement. It includes both a favourable investment environment created in our country and clear understanding of their aims by the Consortium team and its Shareholders", he stated.

An immense importance for the region is the increase in tax proceeds, creation of additional jobs. A-PS-3A alone will employ about 200 highly paid employees if we take into account service organizations.

It is of great importance, too, that the Expansion Project implementation allowed CPC to allocate considerable funds for development of the social infrastructure in the Atyrau Region. Four kindergartens were built just within the period between 2011 and 2017: for 200 children in the town of Kulsary, for 160 children in Birlik settlement, Akkystau and Ganyushkino villages. Total renovation of eight schools was carried out in the regional centre and regional districts, including new furniture and office equipment acquired, the regional maternity hospital was renovated into a contemporary perinatal centre.

... AND THE COUNTRY

Deputy Minister of Energy of the Republic of Kazakhstan Gani Sadibekov called the completion of the CPC Expansion Project a paramount event for the energy industry of the country.

"The global demand for oil will reach its peak by 2030; therefore,



it is necessary to increase its extraction during the coming 10 years. Securing the indicator growth in the oil and gas industry is dependent, to a great extent, on the positive dynamics in the country's economy. In the current year, we are expecting a growth in oil extraction up to 85 mln tonnes. Thus, we are planning to transport over 50 mln tonnes through the CPC system", Gani Sadibekov claimed.

THE SAFEST ROUTE

The Executive Vice President of KazMunaiGas for oil transportation Nurtas Shmanov has added that, now, the pipeline can take in the maximum oil volume designed by the Expansion Project.

"It is really a long awaited event for the Shareholders and producing companies. It is probably symbolic that the completion of the CPC Expansion Project has coincided with the start of oil extraction at Kashagan Field", Nurtas Shmanov resumed.

The completion of the facility expansion project for CPC pipeline system in Kazakhstan has become a milestone both for the Consortium and the Atyrau Region, as well as for all countries of the Eurasian Economic Union on the whole. A new impetus has been given to the shortest and most cost-effective, as well as safest rout for transportation of Caspian oil to global markets.

by Pavel Kretov





Ivan Nesterov, "The upgrade significantly improved the reliability of the turbines"

Most of the mainline pumps in the CPC pipeline system are driven by electric drivers. However, there are a few stations where the pumps are driven by gas turbines.

One of these stations is PS Kropotkinskaya, the largest station in the Tengiz – Novorossiysk pipeline system. It is also the most powerful one. In this section, the pipeline pumps over the largest amount of oil, for which purpose there are six mainlines and four booster pumps installed at the station.

"To put all these pumps in motion, PS Kropotkinskaya has eight gas turbines, six of which operate as turbine-driven pumps, and two as turbine-generators. There are air and gas compressor stations as well, and a gas distribution station," says Ivan Nesterov, Deputy Chief Mechanical Engineer for Gas Turbines.

Under the CPC Pipeline System Capacity Expansion Project, in 2014, three new gas turbines were installed at PS Kropotkinskaya. It was a large-scale and diligent construction activity, in which the Consortium operational personnel, representatives of contractors and manufacturers were involved.

"The key problem of these hazardous gas work was that they were performed in the immediate vicinity to the running equipment. We monitored the contractors' activities on a constant basis, we put up fencing, and carried out routine measurements of gas content," recalls Vitaly Gondarev, Senior Engineer for Operation and Repair of Gas Turbine Units.

Immediately after installation of the new gas turbines, an upgrade of the old equipment installed in 2002 commenced. To increase its capacity, specialists replaced motors, gearboxes and a part of the mainline pumps mechanical design: new rotors and bearing assemblies were installed.

"It took us a year and a half to upgrade the equipment," Ivan Nesterov says. "The process was not that easy. The pilot project with the first turbine was especially difficult. However, following the upgrade we have achieved all the targets set. Today, the equipment operates with higher capacity, and its reliability has significantly improved."

For example, it is very important that it is easier to perform inspections on new end seals. New gearboxes now have two control points for temperature. There are also higher-capacity oil pumps installed on the auxiliary systems of the new mainline pumps.



Alongside the upgrade of the old equipment at PS Kropotkinskaya, setting up and fine tuning of new gas turbines was underway. For example, the operation algorithm of the VGV system, variable guide vanes, after the turbine shutdown was modified. There were essential modifications introduced to the functional circuit of the safety relief valve.

Over the past few years, visualization of data incoming from turbine transmitters has undergone several major changes. This work has now achieved a phase of the vibration control analysis system implementation, which will generate warning signals. This will allow for early detection of defects growth and for timely measures to prevent equipment failures.

"In the near future, it is planned to implement such important projects as replacement of the fire and gas detection system on the old mainline pumps and turbine-generators, as well as winterization of all gas turbine units," Ivan Nesterov points out. "These activities were successfully implemented three years ago at PS Atyrau in Kazakhstan. The reliability of turbines was considerably increased, and no equipment failure due to freezing, icing or condensate congelation was recorded."



An upgrade is a non-routine task. Ivan Nesterov, Vitaly Gondarev and Vitaly Romanov

Vitaly Romanov, former Deputy Chief Mechanic, contributed a lot to the upgrade and development of the CPC gas-turbine equipment. Unfortunately, he is no more with us.

"He was a top-ranked specialist; we owe many achievements in using CPC gas-turbine units to his personal contribution," Ivan Nesterov recalls. "It was him who achieved almost a double decrease in failures of this type of equipment over five years. He was able to solve all kinds of challenges. Even when these were not mechanical problems, Vitaly engaged IT, SCADA, and I&C specialists, and always found solutions. He did have analytical mind-set: he lined

up the facts obtained from different sources in a logic chain, and found the root cause of failures. It immediately became clear what had happened first and what later. This helped develop a plan of actions to prevent similar failures in future."

Vitaliy did a great job to convert the turbines from liquid to gas fuel at PS Kropotkinskaya. It not only reduced seven times the costs of fuel purchase, but also solved the problems of equipment operation associated with increased equipment wear and weather factors.

by Pavel Kretov



PS Kropotkinskaya upgrade. August 2012

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A Terminal in Batumi: History and Today

IN LATE SEPTEMBER 2017, ON INVITATION OF KAZMUNAIGAS, JSC THE CPC MANAGEMENT, REPRESENTATIVES OF SHAREHOLDERS AND BOARD OF DIRECTORS OF THE CONSORTIUM VISITED THE BATUMI OIL TERMINAL. THIS VISIT WAS ASSOCIATED WITH THE EXTRAORDINARY MEETINGS OF THE CPC MANAGEMENT BODIES HELD IN BATUMI AT THAT TIME.



The history of the Batumi Oil Terminal dates back to the 19th century and is inextricably bound up with the events related to the development of oil infrastructure in the Caspian Region.

UNDER THE AUSPICES OF THE NOBEL BROTHERS

In the latter half of the 19th century, more than half of all kerosene in the Russian Empire was produced at oil refineries in Baku. In 1883, Partnership of the Nobel Brothers built its first tank farm in Batumi to export oil and oil products.

During that period, there was also the Baku–Batumi railway built, which immediately turned Batumi into one of the most important oil ports in the world. In 1907, the construction of a kerosene pipeline from Baku to Batumi was completed.

COMPLEX AND ADVANCED

Today, the Batumi Oil Terminal is managed by KazTransOil, JSC, a subsidiary of National Company

KazMunaiGaz, JSC. The Terminal provides services for transshipment of oil and oil products from Kazakhstan, Azerbaijan, Turkmenistan, Georgia and other countries. The Terminal area is about 90 hectares; there are tank farms and oil loading facilities there.







The representatives of the CPC shareholding companies highly appreciated the Terminal capacity to store and transship 22 grades of oil and oil products.

The members of the delegation representing leading international oil and gas companies got acquainted with the tank capacity of the Terminal, including the so-called historical part of the Terminal: a tank farm built by Ludvig Nobel in 1883. They also studied the layout and operation mode of rail loading racks, inspected

the laboratory for quality control, boiler house for steam production and heating of transshipped dark oil products, learned about peculiarities of Single Point Mooring operation.

At present, the Terminal has five tank farms comprising 135 tanks, the total volume of which exceeds 550 thousand m3.

MOORING AND SPM

Loading to oil tankers is performed at three moorings and Single Point

Mooring (SPM). SPM is the largest loading facility of the Batumi Oil Terminal. It is able to accommodate tankers with deadweight capacity up to 140 thousand tons.

Goods are delivered to the Batumi Oil Terminal by rail, where they are loaded into farm tanks with the help of special-purpose racks. The Terminal has total of seven racks capable to empty more than 770 cars per day.

by Pavel Kretov







ON THE PAGES OF OUR MAGAZINE, WE HAVE ALREADY SPOKEN ABOUT THE CPC ENVIRONMENTAL AWARENESS-RAISING PROJECTS IMPLEMENTED IN THE REPUBLIC OF KALMYKIA UNDER THE "LET US PRESERVE THE NATURE OF THE NATIVE SHORE" CHARITY PROGRAM.

Since 2014, thanks to the Consortium support, many issues related to improving saigas habitat, upgrading facilities of specialized nurseries and natural reserves have been resolved. Volunteer clean-ups have been organized to beautify public facilities in Iki-Burul and Chernozemelsky Districts: dozens of activities have been carried out to raise environmental awareness of the younger generation, and to draw public attention to the ecological concern of preserving threatened and endangered species of flora and fauna in Kalmykia.

During the four-year implementation of the "Let Us Preserve the Nature of the Native Shore" program, the awareness-raising campaign, which involved a great number of children, was the most fascinating and widespread. Pupils from the Iki-Burul and Chernozemelsky schools actively participated in environmental classes, initiatives, competitions of drawings, poems, fairy tales, and essays devoted to protection of the endangered saigas, and tulips and demoiselle cranes listed in the Red Book.

Love for beauty, conscious and careful attitude towards nature should

be cultivated from the childhood. Therefore, the Environmental Project of 2017 was supplemented by a completely new practice for the Company, i.e. organizing summer vacations for children who had shown interest in environmental issues and who had excelled at school, regional, republican competitions and contests in biology and ecology. Together with the program administrator, the Kalmyk Non-For-Profit Family and Children Support Organization "Tsagan Sedklyasn", from July 1 to 10, there was a dedicated interregional eco-session "To Preserve the One and Only" held in Elista on











the premises of the National Children's Activity Center. 35 children aged from 11 to 13 from the districts of Kalmykia and from Astrakhan took part in this session.

As the national newspaper Khalmg Unn wrote, these ten days became the unforgettable "240 hours of happiness with CPC-R"! The "Tsagan Sedklyasn" Chairperson Irina Ochirova and her administrative group had prepared not only interesting ecological and awareness-raising activities, but had also provided for a variety of cultural, sports, and recreational activities. Children were divided into three groups; each group had a mentor and a counselor. Every day was full of various activities. The camping period incorporated both rest and health improvement, environmental training, and education of children in close communion with nature.

The day began with morning exercises and training the body for low temperatures, cleaning rooms and enjoying a delicious breakfast. In the first half of the day, employees of the Kalmyk State University and specialists of the Chernye Zemli Natural Reserve visited children for every-day Ecological Awareness Promotion, which greatly broadened their horizon. Children discovered more about the flora and fauna of Kalmykia, about the "Chernye Zemli" Natural Reserve and other protected areas, about the problem of desert invasion. They issued the Nature Screams SOS! Eco-Paper, participated in an environmental quest, visited the Museum of Zoology and Herbarium of the Kalmyk State University. The online tour



IRINA OCHIROVA, Chairwoman of the Non-For-Profit Organization "Tsagan Sedklyasn",

"Our organization has been acting as the Administrator of the CPC "Let Us Preserve the Nature of the Native Shore" program in the Republic of Kalmykia from 2014. During this time, more than 3,500 people took part in our creativity competitions, ecological classes and campaigns. The year 2017 has become the year of ecology and protected areas in Russia. We are very pleased that it will be remembered by us and our children for the summer interregional eco-session within the

framework of the CPC environmental project. We hope that this experience was important and needed for all participants. Children did not want to leave, thus much they had forged bonds and teamed up within their groups. They came back home very enthusiastic and active. At the end of the session, it was nice to see that we helped our teenagers appreciate the significance of nature in people's lives and understand what each of us was able to do to protect and preserve the world around us."

Monuments of Nature was equally impressive.

During "health minutes", children were informed about the importance of a healthy lifestyle, proceeding "from the environmental ecology to the human ecology". The names of such "minutes" are self-explanatory: "My Height and My Weigh"t, "Sun Stroke", "First-Aid Green Kit", "Healthy and Unhealthy Food".

Children were overjoyed at their trip to the city park, participation in

the "Environmental Stewardship" Talk-Show and contest of handicrafts made of natural materials, at sports and entertainment games out of doors, eco-race, competition in table games, at the play "Deniska's Stories" in the Russian Theater of Drama and Comedy, and visits to the National Museum named after Palmov, cinema, and swimming pool.

Particular attention should be given to the involvement of children in creativity competitions of drawings, posters, songs, and fairy tales. »















The result of this activity was the final concert including a performance prepared by own efforts to close the dedicated eco-session.

Judging by the feedback from children and their parents, these ten days in the camp will linger on in their memory and will be a perfect reminder of the need "To Preserve the One and Only". We hope that such an imposing name of the session will become a main motto for young ecologists.

by Baichkha Mantyeva

In 2017, the CPC-R "Let Us Preserve the Nature of the Native Shore" program in Kalmykia embraced a vast territory, including the capital of the republic and 13 municipal districts. Under the project, a purpose-oriented support was given to Chernye Zemli, State Biosphere Natural Reserve, in order to improve the saigas habitat. There was also environmental and educational work performed among schoolchildren and awareness-raising work among the locals of Kalmykia.

TIMELINE OF THE ENVIRONMENTAL PROJECT 2017

- From July 1 to 10, there was a dedicated interregional eco-session "To Preserve the One and Only" held on the premises of the National Children's Activity Center;
- From July to November, there was a video clip about the year of ecology demonstrated on the LED screen in Elista. There were also five environmental banners installed in the streets of the capital of the republic;
- On October 4 and 6, an environmental Green March was held, within which there were volunteer campaigns organized to plant seedlings in the park areas and at the public facilities of Iki-Burul and Chernozemelsky Districts. 300 fruit trees were planted: apple, pear, plum, cherry trees. From now on, schoolchildren and teachers will take care of these trees:
- On October 24, there was an official announcement of the results of the creativity competition on preparation of materials for flora and fauna protection in Kalmykia among pupils of the national schools. Over 500 children took part in the competition, 84 of them were awarded with valuable prizes and diplomas as winners and medalists.
- The keys to MTZ-82.1 tractor equipped with attachment implements were handed over to Bataar Ubushayev, Director of "Chernye Zemli" Natural Reserve. Use of this machinery will significantly increase fire safety of the Reserve.
- In November, an illustrated collection about the progress of the CPC environmental project implementation came out with photos and the best works of the creativity competition participants.





This Is a Long Way We Should Make

THE YEAR OF ECOLOGY IN RUSSIA IS COMING TO AN END, THE COUNTRY SUMS IT UP. WHAT IS THE IMPACT OF THE FEDERAL PROGRAMME ON SOCIAL ACTIVITIES OF THE CONSORTIUM: WE DISCUSS THIS AND OTHER MATTERS WITH MIKHAIL GRISHANKOV, DEPUTY GENERAL DIRECTOR FOR RUSSIAN GOVERNMENT RELATIONS.



Mikhail Grishankov

- Mikhail, please tell us what is the place of the ecological issues in the CPC social activities? What environmental projects does the Consortium implement?
- Ecological issues have always been and are of top priority for CPC. It is impossible to treat them in any other way, as operations of the Consortium base on strict international standards, which must be complied with. In the Year of Ecology we continued implementation of our environmental programmes in regions, increasing manyfold their budget.

In the Decree of the President of Russia environmental education and regional programmes are declared to be one of major areas of activities in the Year of Ecology 2017. And in this respect we are not just on trend, we are ahead. Thus, already in 2014 in cooperation with the Ministry of Natural Resources and Environmental Protection of the Republic of Kalmykia CPC carried out a pilot

not a mandatory for the Company measure for artificial reproduction of aquatic biological resources, but an absolutely unique and solely voluntary initiative. It is unique because fish which is let out into the natural habitat is a relatively big fish weighing from 100 to 600 g, and this raises the chances of its survival. Speaking about the educational function of the programme "Let us Preserve

"And in this respect we are not just on trend, we are ahead"

project of the environmentally educational programme "Let us Preserve the Nature of The Native Shore" " aimed at drawing public attention to a problem of disappearance of rare plant and animal species. A bioengineering project component was aimed at restoration of the critically endangered saiga population.

In 2015 Red Book symbols of the Kalmyk steppe, the demoiselle crane and the steppe tulip, became an object of the same-named programme. In 2016-2017 we again returned to a problem of preservation of the saiga population. The CPC project "Let us Preserve the Nature of the Native Shore" aimed at protection and increase in a population of sturgeons has been being implemented in the Astrakhan Region for two consecutive years. During that time juvenile sturgeons in amount over 5,100 individuals were let out into the Volga-Caspian Basin under the programme. I would like to underline that this is

the Nature of the Native Shore", it includes formation of environmental friendliness of the younger generation, and developing of environmental culture. For this purpose open classes are organized at schools, where children get acquainted with the nature of their native region and the most challenging issues. Children actively participate in creativity competition, make handicrafts, write poems, and draw. We give them an opportunity to think, what happens around them, and to express their, children's, opinion about burning issues.

- And who in the regions helps to bring environmental projects to life?
- Fortunately, local authorities always support our initiatives. For example, in 2014-2015 our environmental programme in Kalmykia was carried out with support of the Ministry of Natural Resources and Environment and Kalmyk Non-For-Profit Family and Children Support »

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Organization "Tsagan Sedklyasn" ("with all our heart" – author's note), which dealt with arrangement of the educational part of the project.

In 2016-2017 we provided financial assistance to "Chernye Zemli",

sturgeons required for carrying out a bioengineering component of the Consortium's programme, are raised. Moreover, institute employees take active part in preparation and giving open classes at Astrakhan schools. It is to say that all admin-

"The main contribution is children, who participate in the project... Children's works impressed us with their deep understanding of the problem, with their maturity. They have such attitude to the world

around, which may be borrowed by many adults.

The world could have been different then"

State Biosphere Natural Reserve in measures on saiga preservation. At the Consortium's expense UAZ cross-country vehicles, a tractor with attachments, trail cameras, binoculars, and monoculars were purchased for the Natural Reserve staff. An important part of the project was arrangement of watering places directly in the territory of the Nature Reserve, which would enable saiga herds to stay in the protected area and keep safe from poachers.

Out constant partner in the Astrakhan Region is Fisheries Research Institute (Federal State Budgetary Scientific Institution "Caspian Fisheries Research Institute"), the oldest respected institute, at the scientific and experimental premises, the "BIOS" centre, of which juvenile istrators treat our joint programme in a very responsible manner, really putting their hearts in what they are doing.

- What are the results of already implemented environmental programmes of the Consortium?
- The following example may be illustrative: only for 2014-2015 with the support of CPC the Black Sea salmon population included into the European Red List, increased by over half a million species. In Kalmykia, where we carry out a project on saiga preservation, the population of steppe antelopes has started to increase this year. I do not hide that this is a great joy for us. Is it our achievement or the nature's? It is a rhetorical question. In any case,

due to the participation of the Consortium, protection of these rare animals is enhanced, and scientists can easier work and monitor their migration. We will try to make all our regions participate in development of environmental projects as much as possible.

- Mr. Mikhail Grishankov, during the implementation of the environmental programmes a lot of attention is paid to working with children. Why is this group focused on?
- We really try to involve into
 the environmental programmes
 children of all ages. For example, in
 2015 CPC was a partner of the First









All-Russian Environmental Children's Festival "Eco Childhood"; according to our colleagues, it was a very interesting experience.

When planning the project "Let us Preserve the Nature of the Native Shore", we thought about the real contribution we could make to wildlife preservation in the regions. Participation in the protection of endangered plant and animal species is a very important mission. But the main contribution, in my opinion, is the children who participate in the project. I think that the educational aspect is of primary importance. Since childhood school-children come to understand that

it is necessary to protect the environment. For example, when they set sturgeon free to the Volga River with their own hands (as for myself, I have got this opportunity only this year), they get to know this world, they see how fragile it is, and they are ready to protect it. Our future depends on the younger generation's attitude to this issue.

I must say, many children's creative works impressed us with their deep understanding of the problem, with their maturity. They are children, but their attitude to the world around may be borrowed by many adults. The world could have been different then.

– Let us shift from the regional level to the federal. You participated in the opening of IV All-Russian Festival "Original Russia", which started the Year of Ecology. Can you share impressions?

– In my opinion, this is a unique project that unites real connoisseurs of Russian nature, travellers and people who are fond of photography. I affiliate myself with all these categories, so my impressions are all positive.

This festival has been held since 2014 and it involves an increasing number of participants and spectators. This year it coincided »



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"Together with famous scientist and politician Arthur Chilingarov, I was lucky to take part in expeditions to the North Pole and Antarctica. Thanks to this experience, I have a clear idea of how great the consequences of human activity are..."

with the 100th anniversary of the founding of the conservation area system, which was reflected in the exposition – the emphasis was made on specially protected natural areas of Russia. Unique landscapes, picturesque places, beautiful forests, mountains and lakes, animals – this beauty is breathtaking! It's great that the works of talented photo artists gave millions of our fellow citizens the opportunity to "move" to the most remote places in Russia, to experience both admiration and pride for our country.

- Mr. Grishankov, you said you were keen on travelling. Could you share

your experience in communing with nature?

– Many years ago, when I was working in the State Duma of the Russian Federation, I took part in various expeditions, both inside the country and abroad. We are still in close friendly relations with one of the most famous scientists, politicians, State Duma deputies Artur Chilingarov. I would like to remind you that he was one of the originators of the active development of Rosgidromet, which also dealt with ecological and environmental issues. I was lucky to take part in expeditions to the North Pole and Antarctica together with him.

I was just an observer, but there were scientists in our group who conducted serious scientific research related to environmental protection and to climate change on the planet. Thanks to this experience, now I have a clear idea of how great the consequences of human activity are for all of us.

For example, during the expedition to the North Pole, when the historical submersion of the "MIR" deep submergence vehicle was carried out and the Russian flag was installed at the geographic location of the North Pole, we stopped near the islands of the Franz Josef Archipelago.









Frankly speaking, I was shocked by what I saw there – by what people left behind in the period of Arctic

I would like to note that immediately after this expedition a number of decisions were made

"After our expedition it was decided at the highest level to clean the nature reserve land from metal scrap"

Region development at the end of the existence of the Soviet Union!

Dozens of thousands of barrels, rusty machinery were left on these islands – it was a huge environmental problem!

at the highest level, and the cleaning of our nature reserve land from all this scrap metal started. A transition was made from conversations about ecology to real actions.

A similar story took place during a trip to Wrangel Island. This is a unique island. And such terrible traces of human activities were also left there. Probably, one of the highest moments for me was when we, on board a research ship, with machines for pressing this immense amount of barrels, approached Wrangel Island...

- What is the main lesson you learned from your trips?

- Learning the world, becoming acquainted with different countries and the attitude in these countries to the issue of environmental protection allow us to determine at what point we are now and to understand that we need to work harder in this direction. Everyone knows perfectly well the examples connected with a number of European countries – how wastes are sorted there, how the state and, first of all, the municipal authorities create a system in which every citizen is interested in a cleaner environment. I would like to see the same in our great country. It is such a long way to teach our fellow citizens to sort wastes. But we must make it.

> Written down by Ekaterina Krapivko





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Yury Prokhorov,

"Let All Emergencies Be Only Drills!"

ONE OF THE MOST STRIKING EVENTS OF THE YEAR WAS, AS ALWAYS, DRILL EXERCISES HELD AT THE CPC FACILITIES. WE WERE ABLE TO SEE A RICH ARSENAL OF OIL SPILL RESPONSE MEANS, AND EVALUATE THE EFFICIENT TEAMWORK OF THE INVOLVED PERSONNEL. BEHIND ALL THIS SPECTACULARITY, THERE IS A SERIOUS TRAINING OF NUMEROUS PARTICIPANTS AND GREAT PREPARATORY WORK OF THE EXERCISE ORGANIZERS. WE ARE TALKING ABOUT THAT TO YURY PROKHOROV, MANAGER FOR FIRE SAFETY, CIVIL DEFENSE, EMERGENCIES AND OIL SPILL RESPONSE OF CPC-R.





Yury Prokhorov

"Mr. Prokhorov, what types of drill exercises are held in CPC, what is their frequency?"

"Every year in the regions of the Russian Federation, there are comprehensive joint drills held with involvement of EMERCOM, contractors: Starstroi, LLC and TsASEO, JSC (Center for Emergency, Rescue and Ecological Operations) and with invitation of representatives of supervisory bodies. In the region where there have been no comprehensive joint drills, there are special tactical exercises organized with the participation of the CPC personnel and Starstroi staff. There are also command-staff exercises organized, which come before comprehensive joint drills, and command-staff training, which comes before special tactical exercises. In addition, there are fire tactical exercises held every year at the pump stations and Marine Terminal facilities.

Every month, as per schedule, there are emergency response drills to isolate and respond to emergencies (i.e. fire, accident, oil spill) and emergency response drills with the volunteer fire brigade personnel organized at the facilities of the pipeline system.

In the Republic of Kazakhstan, there are two large special tactical exercises conducted annually on the Emba and Ural rivers, and one comprehensive training exercise conducted jointly with TengizChevroil. Plans for fire tactical exercise and emergency response drills are the same as in the Russian Federation.

All the above-listed activities are organized in accordance with the program for mock emergency drills at the CPC facilities, which is annually developed."

"What is the basis to choose a training ground?"

"The Consortium is obliged to constantly prove availability of resources and means in accordance with emergency response plans. For the linear section of the pipeline, there was a federal oil spill response level accepted – over 5,000 tonnes. The training ground is chosen in such a way as to show the CPC's ability to respond to federal level oil spills, demonstrate availability of means for oil skimming onshore and offshore, availability of fire-extinguishing equipment, etc. As a rule, we choose an area where there is an underwater crossing: Volga, Akhtuba, Manych, Kuban, etc. Following the comprehensive joint





drills, the Consortium obtains a conclusion by the EMERCOM Chief Directorate for the constituent entity of the Russian Federation on relevance of the resources and means to the level of possible emergency."

"What required steps does the event preparation process include?"

"Firstly, a drill preparation calendar plan is developed in the region. It details all organizational measures, defines input data to develop the concept, drill phases, timescales and drill format.

Prior to the event, the exercise commanders perform staff training, clarify and adjust the oil spill response plan. Availability of equipment for drill participants is pre-verified; training with personnel and inductions on drill operational procedure are pre-conducted.

Before each exercise, vehicular accesses and observation sites are arranged, a tent camp is built, catering is organized, and HSE activities are arranged.

Preparing and conducting exercises is a great team-work of the engineering and technical staff of the region (Emergency Response Management Group), volunteer emergency response team (NASF), engineering and technical staff of Emergency Response Centers of Starstroi, LLC, EMERCOM, branches of contractor TsASEO, JSC."

"What is the role of each drill participant?"

"The CPC personnel and volunteer emergency response team are in charge of primary response, reporting, examination of the emergency site and command of the emergency response operation conducted by Starstroi, LLC. Starstroi specialists also organize oil pipeline repair and operation recovery. TsASEO groups are engaged in oil spill response, which exceeds 100 tonnes according to the exercise script. Careful emergency zone monitoring is carried out by the ecological analytical laboratory.

The drills are attended by employees of the EMERCOM Chief Directorate, EMERCOM State Fire Service, Central Internal Affairs Directorate, and Disaster Medicine Service. If required, the resources and equipment of the local division of the Russian System of Prevention and Response to ES and volunteers are additionally involved.

We have built business relations with all participants of the exercises; such relations help in solving issues related to ensuring readiness of prompt response resources and means to elimination of accidents, fires and other emergencies."

"What are the general results of the drill exercises conducted by the Consortium in 2017?" In other words, at any moment we are ready to meet the challenges on emergency oil spill response at the regional and federal levels.

In 2018, there are no plans for any changes related to the drill exercise rate of frequency, organization, or programming. We shall mainly focus on the oil spill response plan drilling."

"What aspects should each CPC employee pay attention to in order to improve the security of our facilities?"

"All employees must observe the following rule: "Every day without incident enhances false confidence that everything is OK with me, with us, with our team, because



"The goals and objectives of the drill exercises are fully accomplished. The activities held showed once again that the CPC existing system of alert and response to possible emergencies ensures fulfillment of all tasks. The emergency response resources and means of CPC and our contractors are adequate and in line with the current oil spill response plan, the timing of their concentration for oil spill containment meets regulatory requirements. Organization of interaction between CPC and state bodies, whose competence includes the activities practiced by the drill participants, is at the proper level.

the work practices we use today have not led to adverse consequences." Probability of occurrence of emergency at our facilities, which are a combination of state-of-the-art technologies, is extremely small, but this is not a reason for being complacent.

I would like to take this opportunity to congratulate my colleagues on the upcoming New Year! I wish everyone good health and success! And let all emergencies, both in life and at work, be only drills!"

Interviewed by Ekaterina Suvorova

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By Sea and By Land

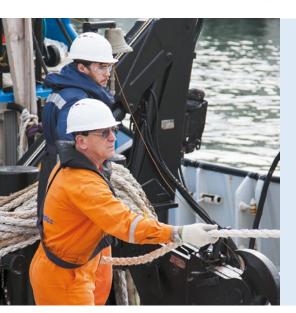


COMPREHENSIVE INSPECTION

About 300 employees of the Marine Terminal and contractors took part in this full-scale training; about 25 fleet units were involved. The representatives of the regulatory bodies and municipal administration of Novorossiysk observed the training activities.

To ensure the full-scale inspection of the available manpower and resources, as well as to train the cooperation among various divisions of the CPC, emergency response teams, contractors and public authorities, the specialists of the Marine Terminal developed a scenario stipulating an improbable but extremely time-consuming recovery from an accident – guillotine break of the offshore pipeline during loading of the tanker at the single point mooring (SPM).

According to the scenario, the operator of mooring hawsers detected oil seepage around the SPM 1 and reported about that to the dispatcher of the operations control center (OCC). The dispatcher of the OCC conventionally stopped loading



The drill made it possible to train the cooperation between the CPC Emergency Response Management Group and professional emergency response teams responsible for the area of the Marine Terminal.

The tasks for implementation of emergency resources were successfully fulfilled; schemes of placement and interaction of oil traps were demonstrated. The emergency recovery tasks were fulfilled in a situation of conventional oil spill along the coastal line in accordance with the effective Oil Spill Response Plan applicable to the Marine Terminal. The diverting defense booms were promptly installed, the defense booms closed the harbor for auxiliary vessels, the receipt and pumping of the collected oil blend through the oil sludge pipeline into the multipurpose tank were arranged.

Special attention was paid to the issues of compatibility and integration of the mechanical media and communication equipment. The actions of the group of environmental control of water, soil and air sampling were practiced.

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of the tanker and sent a ship to the area of the assumed seepage for analysis of the situation. Simultaneously it was checked whether the auxiliary vessels could leave the harbor promptly.

CONSTRUCTION OF TRAPS

On the basis of the results of the analysis and with regard to the actual hydrometeorological conditions, eight J-shape traps were constructed. The total length of the defense booms was 1.6 km. In addition, 4.7 km of defense booms were prepared and partially installed for protection of the coastal line.

After its containment, the spilled oil was collected into the transport buoyancy tanks delivered with the help of the deep-sea tug and small vessels.

During the second stage of the training, the activities aimed at containment and liquidation of oil spill in the coastal stripe were practiced. Crane trucks, coastal and offshore defense booms, various types of oil-gathering systems and other means were used during the drill.

The third stage of the training dealt with evaluation of the skills of the personnel of the Marine Terminal in extinguishment of oil fire



on the water surface. This operation was successfully fulfilled with the help of deep-sea tugs equipped with fire-fighting monitors.

The CPC Team of Industrial Environmental Control took an active part in the training. The members of the team established a contact with the representatives of the government environmental supervisory body. Some samples were simultaneously collected, the ambient air control station operated at the boundary of the nearest residential area.

TASKS AND OBJECTIVES ACCOMPLISHED

The training was positively evaluated by the observers and regulatory authorities: all tasks and objectives were accomplished – the conventional oil spill was promptly

contained, the coastal line was secured. It should be noted that during the whole period of operation of the CPC Marine Terminal there have been no violations of the rules of industrial and environmental safety, shipments have been carried out without any incidents involving oil spill in the offshore areas.

The CPC annually holds no less than 10 trainings, involving oil spill response actions and extinguishing fires. Being a part of the Company policy in the sphere of health, safety and environmental protection, their aim is to ensure readiness of the personnel and other resources of CPC and its contractors for any emergency response and recovery actions along the route of the oil trunk pipelines.

by Pavel Kretov





In Line with Global Standards

HEALTH AND SAFETY OF THE EMPLOYEES AND CONTRACTORS OF THE CASPIAN PIPELINE CONSORTIUM IS THE HIGHEST PRIORITY OF THE CPC OPERATIONS.



Being an international company, the Consortium implements the best global practices in the area of occupational health, safety and environmental protection, as well as fully complies with the laws of Russia and Kazakhstan. The management of the Consortium sets strict requirements in these spheres for both the staff members and representatives of

the contractors involved in the operation of the CPC facilities. Thus, the following issues are under the constant supervision: availability of the personal protective equipment, state of the working places, regular log keeping, timely issue of permits for work performance, etc.

According to the CPC policy, the employees of the Consortium

and representatives of contractors are involved in the identification, assessment and mitigation of operational risks and risks to the occupational health and safety. These policies and requirements to the contractors are available on the official web site of the Caspian Pipeline Consortium.



The research conducted in large industrial companies shows that injuries sustained while walking are the most common. To avoid any factors of unsafe behavior you should always:



Stay concentrated while moving



Avoid running in corridors



While going downstairs hold on to handrails and watch your step



Pay attention to installed warning signs "Wet Floor"



According to the statistics, about 46 % of the total recordable incidents and first aid cases are attributed to wet surfaces. At the same time it is important to remember that high-risk areas for walking include not only offices but also wet areas of the premises, pavements and parking lots.

To reduce the risk of falling you should also:



Avoid using your cell phones and other gadgets for reading and texting while walking



Choose footwear with regard to weather conditions



Pay attention to the state of road surfaces: special attention should be paid to moving through the areas covered with ice, water, paint as well as near the curb







The following recommendations are especially relevant in winter. If you are walking through the areas covered with ice, it is advised moving in such a way as if you were wearing skies - step on the whole foot, do not raise your legs high and do not strain your knees. Move slowly; keep your hands out of your pockets to keep balance. Keep in mind that there may be ice under snow on the pavements - you should cross such areas cautiously.

It should be reminded that the CPC implemented the Program for Control of Potentially Dangerous Activities and Working Conditions in 2013. It established the direct connection between the Consortium's personnel and representatives of contractors at all industrial sites and the CPC's management of all levels.



For Schoolchildren from Shkolny

THIS YEAR, THE SCHOOLCHILDREN OF SCHOOL NO. 59 OF THE VILLAGE OF SHKOLNY LISTENED TO THE FIRST BELL FOR THE SECOND TIME. ON NOVEMBER 10, THE SCHOOLCHILDREN OF THE GENERAL EDUCATION INSTITUTION MOVED TO A NEW BUILDING, THE CONSTRUCTION OF WHICH WAS FUNDED BY THE CASPIAN PIPELINE CONSORTIUM.



On November 10, 2017, Mikhail Grishankov, CPC Deputy General Director for Russian Government Relations, and Anna Minkova, Vice-Governor of the Krasnodar Krai, inaugurated a new school building. The ceremony was attended by representatives of the Krymsky District Administration, schoolchildren and their parents.

FROM THE OLD...

The village of Shkolny is located in the foothills of the Caucasus

Mountains, in the region where the Cossack traditions are still strong.

It even owes its name to the Cossack horse-riding school, where future defenders of the southern borders of the Motherland have been trained for many years. The village school, in which children were taught to read and write, was built in the latter half of the 19th century. It was a small building with three primary school classes; kids from other villages located up to three kilometers away

from Shkolny also came there for education.

"The highest prosperity of the village and school fell on the second half of the 50s, when Gorny grape-growing state farm was opened here. In this period, there were about 400 schoolchildren in the village," says Natalya Lyakh, Principal of school No. 59.

To provide the children with decent learning environment, the workers of the state farm built a new school building at off-work time by

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consolidated efforts. The building appeared to be very nice but the construction materials used (rubble stone bound by clay and sand mortar) did not allow hoping that it will be durable.

...TO THE NEW

Time passed, and the building of the old school ceased to satisfy modern requirements for seismic, fire and antiterrorist safety, as well as sanitation and hygiene standards.

"CPC proposed that this problem be solved by constructing a new school building. The international Consortium allocated about 60 million rubles for the construction. The work started in late April 2017, and by November the school was ready for the housewarming party," continues Natalya Lyakh.

Such high rate of construction was achieved thanks to employment of the technology of prefabricated buildings using modular constructions. Nowadays, this technology is widely used in the Western world, and is gaining popularity in our country.

Modular block-containers, i.e. general-purpose demountable modules, were used in the project implementation. Their main feature is a demountable frame that allows transporting block-containers in a space-saving transport package greatly saving the funds to deliver them to the place of assembly. A robust frame of the modules is designed for large loads, and allows assembling relocatable buildings up

to three floors in height within a very short time.

A MATTER OF PRIDE

The principal was pleased to show the new school building for 120-schoolchildren to the correspondents of Panorama CPC. According to modern requirements, federal and Krai regulations, the building consists of several blocks: primary school, secondary school, administrative, medical and catering facilities. All in all, the school has 11 classrooms and a gym.

The large gym with 6-meter ceiling is a real matter of pride. Not only physical education lessons but also training of talented young athletes is held there. It should be mentioned that schoolchildren have repeatedly become medal-winners at the All-Kuban School Olympics; girls are very successful in competing for the district volleyball team, and young men, for the rugby team.

In a moment, the schoolchildren appreciated light student lounges and spacious wide corridors. And what is more – furniture individually adjustable for a school child height and the latest multimedia and laboratory equipment also donated by the Caspian Pipeline Consortium to the school.

The schoolchildren and teachers are also happy with availability of modern catering facilities, which already offers various tasty dishes. After all, the old building did not have own catering block: all meals were imported.



According to the results of state examinations, school No. 59 of the village of Shkolny is one of the best in the Krymsky District. Every year, the school leavers enter the famous universities of Kuban, Moscow, and Saint Petersburg. The school management is confident that thanks to the fruitful cooperation with CPC, the academic achievements of children will increase even more.

DIFFICULTIES ARE OVER!

This year, there was another school in the Krymsky District that received a significant support as part of the CPC charity program: school No. 16 in the village of Moldavanskoye. The Consortium has built a gas boiler house there that is worth over 10 million rubles.

As Vera Vrady, School Principal, said the school used to have a low-powered diesel boiler house, which was not enough for heating the gym and for hot water supply. Now, all these difficulties are over. The builders installed new, environmentally friendly gas boiler house with a capacity of 700 kW able to heat the rooms with an area greater than 7 thousand m2, and ensure smooth-running operation of the hot water supply system.

by Pavel Kretov

From 1998 to 2017, the Caspian Pipeline Consortium has allocated about 1.5 billion rubles to the Krasnodar Krai for charity purposes.







IN MID-SEPTEMBER, THE KRASNODAR KRAI CELEBRATED TWO ANNIVERSARIES: 80 YEARS SINCE THE REGION FORMATION WITHIN THE CURRENT BORDERS AND 225TH ANNIVERSARY OF THE KUBAN LAND DEVELOPMENT BY COSSACKS.

On the eve of the public holidays, CPC General Director Nikolay Gorban and Deputy General Director Mikhail Grishankov presented modern and comfortable buses to the Kuban residents on behalf of the international Consortium.

A ceremonial hand-over of 19 school buses to the Krasnodar Krai was held on September 13, 2017 on the outskirts of Krasnodar: it appeared to be quite difficult to find a park with sufficient area to

accommodate such a sizable bus fleet. Yellow buses with the inscription "The Gift from the Caspian Pipeline Consortium" and signs "Caution, Children" were lined up in a half-square near a large trade centre. On this non-autumn-like hot sunny day, numerous representatives of the municipal administrations and school principals, who were to receive the vehicles, came to the ceremony in high spirits. Vice-Governor of the Krasnodar Krai Anna Minkova arrived to

the ceremony to personally thank CPC. In her speech, she noted that the Krasnodar Krai has the largest fleet of school buses in Russia.

"Every day, almost 50 thousand children drive up to their schools and back home by school buses. And we need their constant upgrade. Many thanks to CPC for the social mission, which the Company has been undertaking for many years. Thank you for our partnership!" said Anna Minkova.









"We'll stay here, in the Krasnodar Krai, for long, and we'll continue our social policy in years to follow," assured Nikolay Gorban, General Director of the Consortium. "Last year, CPC purchased 27 school buses for the region, this year - 19. For us, the Company's image is of importance, and the Company also works for the benefit of local residents. Please note that since the beginning of our partnership relations with the Krai administration, we have invested about 1.5 billion rubles in the Krasnodar Krai. Only in the first nine months of 2017, the Consortium transferred 4 billion rubles to the regional tax budget."

CPC equipped all buses handed over to the schools of Kuban with the GLONASS navigation system, overspeed limiters, external loud-speakers, digital tachometers, emergency response teams calling devices and other safety equipment. The cost of the purchased vehicles was almost 36.5 million rubles.

This time, most of the vehicles, i.e. five buses, were sent to the Abinsk District, schools in the Kavkazsky District received four buses, schools of each of the Dinskoy and Krymsky Districts got three, the Ust-Labinsky District – two, one bus for each of the Korenovsky and Tbilissky Districts.

"We are grateful to the Consortium for the bus purchased. We drive our school children on three buses, one of which has already become unfit for use. That is why your present was at the very right time," Olga



Dzhezhora, Principal of school No. 8 in the Kavkazsky District, provided her feedback.

At the ceremony of handing over the buses the school principals thanked the Consortium not only for the new vehicles. For example, on September 1 of this year, school No. 37 in Staromyshastovskaya station of the Dinskoy Dstrict was opened after refurbishment thanks to the Company. The attendees expressed their gratitude to CPC both for the modern gas boiler house for school No. 16 in the village of Moldavanskoye in the Krymsky District, and for the construction of a new building for school No. 59 in the village of Shkolny of the same District.

by Pavel Kretov





As a Gift to Hero-City

CPC HAS DONATED FIVE BUSES TO NOVOROSSIYSK. AN OFFICIAL CEREMONY WAS HELD IN THE MAIN SQUARE AS PART OF THE CELEBRATION OF THE CITY DAY.

CPC General Director Nikolay Gorban and Mayor of Novorossiysk Igor Dyachenko cut the red ribbon at entry to one of the buses.

New buses that the Consortium donated to the city are equipped with electronic display boards, navigation system, and automatic fire suppression system; each of them is equipped with special devices for fastening and transportation of wheelchairs.

The best drivers of Novorossiysk were entrusted with driving these buses

"It is a nice modern bus," a driver Nikolai Vasilyev appreciated the gift. "Among the important advantages, there is an automatic transmission, independent front suspension, and air conditioning."

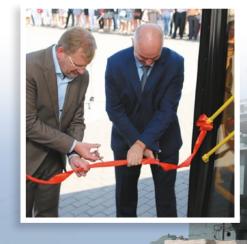
New vehicles immediately came onstream to one of the highest-demand city routes No. 41: Yuzhnaya Street to Kutuzovskaya Street.

Speaking in front of the natives of Novorossiysk during the buses handover ceremony, Igor Dyachenko, the head of Novorossiysk, noted that CPC was a reliable social partner of the city.

"Starting from 1998, during the whole period of cooperation between the city and the Company, the Caspian Pipeline Consortium has invested over 900 million rubles in equipping health care, educational, culture institutions, municipal infrastructure facilities, as well as in providing support to educational programs and socially vulnerable groups," the mayor stressed.

Nikoly Gorban, in his turn, spoke about current and future CPC charity projects in the municipality, about continuation of traditional charity programs. When the head of the international Consortium was speaking, reconstruction of Municipal Polyclinic No. 2, Municipal Budgetary Institution, and Center of Culture "Kuban", Municipal Budgetary Institution, in the village of Tsemdolina was nearing completion. Over 211 million rubles - that is the total amount of the CPC planned expenditures for charity in the municipality of the hero-city of Novorossiysk.

by Pavel Kretov







To the Natives of Stavropol Krai...

On November 22, 2017, CPC General Director Nikolay Gorban and Stavropol Krai Governor Vladimir Vladimirov took part in an official handover of 21 ambulance cars to the regional healthcare institutions. The Consortium had allocated almost 44 million rubles to purchase specialized vehicles equipped with all necessary equipment.

Moreover, Nikolay Gorban and Vladimir Vladimirov handed over certificates for medical equipment for a total amount exceeding 24 million rubles to the healthcare institutions of the Ipatovsky and Izobilnensky Districts.

According to the head of Stavropol Krai, the equipment handed over to the regional healthcare institutions will help significantly improve the speed and quality of medical services provided to the region's residents.







... and to the Pupils of the Astrakhan Region

On November 23, 2017, there was an official handover held to donate 19 Mercedes buses to the regional schools. The ceremony was attended by CPC General Director Nikolay Gorban and Astrakhan Region Governor Alexander Zhilkin. The Consortium had allocated over 45 million rubles to purchase modern and safe vehicles for schoolchildren.

Handing over the keys to the school buses, Nikolay Gorban stressed:

"CPC does not only run its business, but also holds it its duty to promote the social sphere in the regions where it operates. It is always a special pleasure for us to help children's institutions."

"We are glad that such a good corporate citizen as CPC operates in the region. We wish further successful development to our long-time reliable partner!" emphasized Governor Alexander Zhilkin.





A Housewarming Party in Ganyushkino

IN NOVEMBER OF THE OUTGOING YEAR THERE WAS
A KINDERGARTEN OPENED IN THE VILLAGE OF GANYUSHKINO,
KURMANGAZINSKY DISTRICT, ATYRAU REGION. ITS CONSTRUCTION
WAS FUNDED BY THE CASPIAN PIPELINE CONSORTIUM UNDER
THE CHARITY PROGRAM.

The official ceremony was attended by Kairgeldy Kabyldin, CPC Deputy General Director for Kazakhstan Government Relations, Mikhail Grishankov, CPC Deputy General Director for the Russian Federation Government Relations, representatives of district and local authorities, as well as the little masters of this children's institution and their parents.

"Being a good corporate citizen, CPC is implementing a large-scale and consistent program of social support

and sustainable development in the regions where it operates. During its operation in Kurmangazinsky District, the Consortium has invested over 773 million tenge into construction and equipping of health care, educational, culture, and sports institutions, social infrastructure, and support to socially vulnerable groups," Kairgeldy Kabyldin pointed out in his welcome speech.

The cost of construction of the kindergarten for 200 children was 605

million tenge. The total area of this preschool institution is more than $2,000~\text{m}^2$. The two-storey building will accommodate eight groups for 25 children each from the age of three to seven. Each group has its own building section with all necessary premises. The building has multi-purpose halls for music lessons, physical exercises, various hobby clubs, as well as offices for preschool teachers.

There is a laundry, medical room, storage rooms with a freight













elevator on the ground floor. Outside the building, there are sports and playgrounds.

As part of cooperation with the Atyrau Region Akimat, the Consortium has constructed an open hockey arena, street lighting lines, and two recreation parks in Kurmangazinsky District; it has developed gas and summer water supply infrastructure. In addition, the district was donated various-purpose vehicles. Social support campaigns for disabled people, orphans and children from low-income and troubled families are constantly implemented with the CPC assistance.

The plans for the next year and a half include construction of a kindergarten for 290 children in the village of Akkol, and a school for 80 pupils in the village of Zhastalap in Kurmangazinsky District. ■

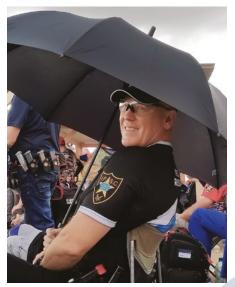






A Mind of a Champion

HEAD OF CPC SECURITY, EVGENY PETRUSHIN, IS THAT TYPE OF PEOPLE WHO INSPIRE OTHERS WITH THEIR OPTIMISM AND GREAT VITALITY. FOR HIM, SPORTS IS AN INEXHAUSTIBLE SOURCE OF ENERGY.



Rain won't get on the way of the championship!..

Evgeny Petrushin is a practical shooting master. In September 2017, he came third in the World Championship in France with a team of veterans. Only think - third in the world!.. This great news was the reason to prepare an article for our corporate magazine, and we arranged for an interview.

However, from the very beginning of our conversation with Evgeny Petrushin it became clear that he was not very content with the bronze earned, let me emphasize, at the World Championship!

"We could have taken not the third, but the second place at least," Evgeny is convinced. "Because of the sanctions imposed on Russia, we were not allowed taking our own guns with us. So, we had to

shoot guns that were given to us on the spot, and it was unreal to get used to them in half an hour allotted before the competition. Firing unfamiliar guns at the championship is definitely a disaster. Nevertheless, we confidently took the second lead. On the third day of the competition, they withdrew a strong shooter from the competition, and we competed with our team cut in the remaining two days. The team means four people, but the ranking was done on the basis of three."

"What was the attitude towards Russian sportsmen?" I ask my interlocutor.

"It was partly benevolent, but there were lots of unreasonable nitpicking. Knowing the story of

the Russian Olympians, whose champion titles and golden medals earned in sports battles had been annulled, we were especially hard on ourselves, and tried to make not a single slip; we were very accurate in shooting. They kept a close eye on us, and took note of all details, even the way a finger was on the trigger... As a result, we were the third, and there were Italian and Austrian teams in the lead. By the way, the Austrian team is the one that lost out to us at the European Championship in 2016."

"You have gained experience of struggling in unequal conditions, which can be useful in future..." I am reasoning.

"I have high hopes that such experience will not come useful to any



The Russian team at the World Championship in France



Russian sportsman from now on, and we will all get only positive impressions from participating in international competitions," Evgeny

"How did you get into this sport? Tell me a bit more."

"Practical shooting as a sports discipline appeared in Russia in 1999; I started practicing in 2002. At that time, I was employed in military service and I thought that I could shoot. That is why, having found an invitation to practical shooting courses in one magazine, I thought with doubt, "Well, what can they teach me!" Yet, I was interested to find out what it was, so I took the courses held in Finland. It was there where I realized that there really was something to learn! So I threw myself into practical shooting.

Of course, over the past 15 years I did have breaks in small-arms training, as I served in Dagestan for three years and in Transdniester for a year and a half. Having come back to Moscow in 2015, I resumed my practical shooting training. The same year, I became the champion of Russia in the team classification, and the fifth in the individual classification; I reached a qualifying standard for the master of sports and was enrolled to the national

Evgeny Petrushin at a shooting line

team. Shortly after, I got the Russian champion title in the team classification.

In 2016, our team took the second place in the European Championship. During this period, the team became the Russian champion once again. Twice, in 2016 and 2017, I was a winner of the Eurasian Championship: it is a very serious international championship, which is held in Yekaterinburg," said

their speed and accuracy determine the team scoring."

At the end of our conversation, I could not help but ask our champion about his sports plans for 2018.

"I want to put more focus on improving my physical form and speed performance," Evgeny shared his thoughts. "As for practical shooting, I'm going to switch to a new weapon-type class: from the standard



The Russian team is preparing for the start

Evgeny. I confessed to my interlocutor that I had not previously had an opportunity to watch competitions in practical shooting. A video, which Evgeny showed me on his cell phone, helped me get an idea of this sport. It was a recording of his performance at the last World Championship.

"The goal is to hit all targets as quickly as possible," he commented. "Each team member independently determines the tactics of their performance at the shooting range, and decides where it is more convenient to replace a magazine, from which position to shoot. The team members go one after another, and the entire team should stay within the allotted time of three minutes. It turns out that everyone struggles for themselves, but at the same time one to classic, in which they use a pistol with only 10 rounds. For a sportsman, it is a harder variant. In the standard variant, there are accessories that help perform shooting exercises, but there is nothing of that kind in the classic.

In 2019, our team is intent upon participating in the European Championship, and in 2020 in the World Championship. It have occurred to me: if there is an opportunity, you need to try your skills to the fullest, so that you do not regret later on that you have lost a chance to reach a new peak. One must not rest on one's laurels. I think if you have stopped, then you have passed away. After all, life means to move on!" Evgeny Petrushin added.

Interviewed by Ekaterina Suvorova



Scientific Approach Is Always Justified

ANATOLIY KRUGLIK, CPC STANDARDS, REGULATORY AND INFORMATION SUPPORT MANAGER, TURNED 70 THIS YEAR, 25 YEARS OF WHICH HE DEDICATED TO OIL PIPELINE INDUSTRY. THUS, THE INDUSTRY GOT A WELL EDUCATED, THOUGHTFUL AND CULTURED PERSON AND A GREAT SPECIALIST. THE OIL PIPELINE INDUSTRY GOT HIM AND THE SCIENCE GAVE HIM.



Anatoliy Kruglik

properties. Anatoliy Kruglik defended a PhD thesis and became a senior research fellow.

But then, the 1990s came and financing of science significantly decreased. It was impossible to carry out scientific activities properly. Moreover, it was necessary to provide for the family. As a result Anatoliy Kruglik had to abandon his work in the institute.

Fortunately, his friends invited him to Krasnoyarsk Regional Oil Pipeline Department of Transsibneft OJSC (Omsk) for the position of Deputy Chief Engineer, Occupational Health, from which in 1999 Anatoliy Kruglik was promoted first to Deputy Chief Engineer, Industrial Safety, and then to Deputy Head of Operations.

"When I worked in the Institute of Physics, I loved hunting. And while hunting, I sometimes had to walk on pipes which were laid across ravines, on so called overhead crossings. Back then, I had no idea that an oil pipeline was under me and that at some point I'll have to work in this industry and "fight" such hunters like me", Anatoliy Kruglik smiles at the memories.

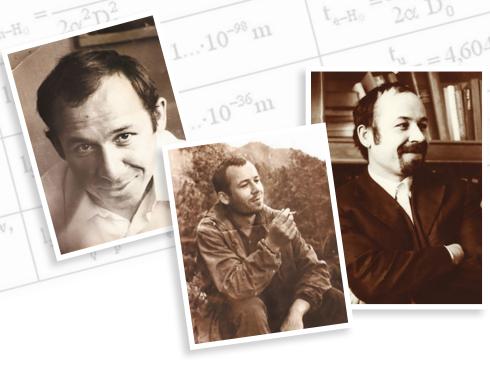
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By the way, Anatoliy Kruglik is also a big lover of quiet hunt. Everyone in his family loves picking mushrooms, especially his eldest son and granddaughters. According to him, the most beautiful mushrooms grow in northern pine forests near Podkamennaya Tunguska. There they have darkbrown caps.

ABOUT HIS PASSION FOR PHYSICS...

"I love physics since childhood. I thought it was the major science in life", Anatoliy Kruglik explains the choice of his first occupation, "It was so when I was a very young man."

Guided by this belief, Anatoliy Kruglik graduated from Kharkov National University in 1969 majoring in physics, and was assigned to work in the Institute of Physics (Siberian Branch of Russian Academy of Sciences) in Krasnoyarsk. There he did experimental research of crystalline substances. Using x-rays, he studied their structure, structure of their atoms and how it influenced crystal







Aleksey Mikhaylov, Anatoliy Kruglik and Dmitriy Martynov after connection of a new segment of oil pipeline from Tengiz to the 116th km

... AND LABOUR ROUTINE

Work in oil pipeline department made Anatoliy Kruglik forget not only about science but also about hunting.

"It was a pretty difficult period for Transneft then, since oil pipelines, construction of which started back in the 1960s, were quite old", Anatoliy Kruglik recalls the beginning of his work in the industry. "In-line inspection, which got widespread use in the 1990s, revealed many defects. the most dangerous of which were buckles and dents. They formed due to faulty construction and were stress points with a high probability of an accident. The first task after diagnostics was to cut buckles out. And there were hundreds of them, if not thousands.

Huge hard work began and there was a tight labour routine. Working day started early in the morning and could last until night. At any moment you could have been summoned to work from home. On Saturdays we had work meetings, and participation in them was mandatory."

Recalling his work experience in Transneft, Anatoliy Kruglik admits that this company gave him a lot. It actually "let" him into pipeline industry, of which he knew little before. It was the work that taught him to manage people, be demanding of others and behave accordingly. It was especially hard for a modest, cultured research fellow, who earlier managed only a small research team and in solely friendly atmosphere.

BREAKING-IN TOGETHER

Anatoliy Kruglik came to Caspian Pipeline Consortium in 2004, at first to a position of regulatory documents specialist and then to Standards, Regulatory and Information Support Manager. His coming into the company was at the time of so called "break-in" when new equipment had been already commissioned and faults and defects that were impossible to identify in advance started to reveal themselves in the process of initial operation. This period lasted for about five years: the period of equipment break-in, forming of regulatory basis and professional growth of managers and specialists.

"It was a hard period, but on the other hand, it was a good time", recalls Anatoliy Kruglik, "It was necessary to adjust equipment and eliminate defects. People felt responsible and involved in an important business."

Main functions of a standards manager included ensuring availability of necessary documents, governing work of people and equipment. Beside that Anatoliy Kruglik was entrusted with keeping statistics of oil pipeline system failures and analysis of their reasons. In this case both his scientific experience and practical skills obtained during the years of work in Transsibneft OJSC came in handy. According to Anatoliy Kruglik, only a person with practical knowledge of structure and work of equipment can control its work and write relevant documents.

With his direct involvement the Company created a regulation on analysis of equipment failures and keeping statistics.»



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"Success of oil pipeline system operation is defined by ratio of equipment failures to 1 million tonnes of pumped oil. So, if in 2004–2005 we had around 14 failures per 1 million tonnes, then in the previous year this parameter was 0.5 failure", says Anatoliy Kruglik proudly. "This is an indicator of professional growth of employees of Consortium and of improvement of reliability of the used equipment."

THE SKY IS THE LIMIT

When the implementation of the quality management system in Consortium began in December 2011, the Operations Department carried out a huge amount of work. Such as monitoring of the main processes in the Company's activities, development of regulations on document management, corrective and preventive actions, management control – a whole set of documents which ultimately determine the quality of the Company's activities. As a result, the Consortium received a certificate of compliance

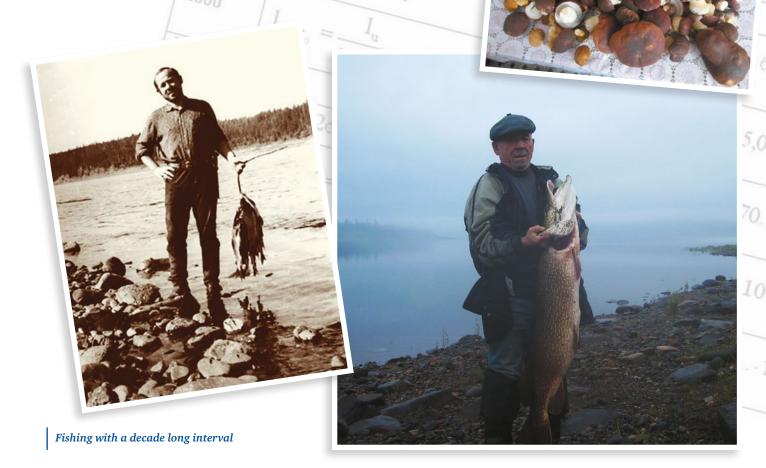
of the quality management system with the international standard ISO 9001: 2008 and BSI's conclusion that the management of the core activities, qualifications, competence of the personnel and applied technologies in the CPC are at a high level.

Anatoliy Kruglik believes that in some way the implemented system helped CPC. If the operational activity was previously carried out in accordance with the standard, albeit not in such a formalized form, but there was already a system of maintenance in the Company, including control, correction, improvement of regulatory documents, and standardization helped significantly improve, for example, the state of HR documentation.

"The quality management system is aimed at ensuring the quality of production at every stage," Mr. Kruglik explains. "At the same time, the standard requires constant improvement, which is not so easy to implement. Well, let us

say, operating factor of our oil pipeline system is 96 %, and there cannot be any more, because natural stops are laid in the project, during which the system needs to be disconnected and some equipment checked.

But even in this situation, the solution was found – reaching the maximum in one direction, the Consortium specialists try to improve work in others, where there is still opportunity for improvement. In addition, the general methodological approach, i.e. to study and suggest anything new and see how it works and, if necessary, improve, is always justified." We also could improve our documentation. In the last year we were particularly good at this,







Colleagues at work – friends for life: M. Sh. Ibragimov, A. V. Savin, A. V. Fomenko and A. I. Kruglik

for example, the electronic library appeared. All the documents of our Company are collected in it, including those for operation in the regions. Now each employee can open them, see and show them to others, if necessary. Thanks to Lidia Ismagilova, head of the Documentation Management Service, who helped us to implement this idea.

Next year, CPC is moving to new standard ISO 9001:2015. All the necessary documentation has already been amended taking into account the upcoming innovations. Specialists on standardization do not stand still, also trying to adhere to the essential principle of "continuous improvement"."

"NAILS SHOULD HAVE **BEEN MADE FROM THESE** PEOPLE..."

During our conversation, Anatoliy Kruglik often reminisced about his colleagues with whom he began his work in the Company and with whom he is working today side by side.

"When I came to work in the Operations, it was headed by General

Manager Mr. Dmitriy Kim. We were acquainted with him while working in Siberia. This man is a very good engineer, and hires only experts. I think he initially set a very high level of engineering service in the Company, he managed to bring together highly qualified personnel. These are Arkadiy Savin, Vladimir Grinko, Dmitriv Mironov, Marat Ibragimov, Aleksandr Starshinov. These are people who have worked all their lives in the oil pipeline

"To be sure, our specialists are very good. In the Eastern region, these are Viktor Sutyagin, manager of the Operation & Maintenance Group, who knows the system thoroughly, and is a man of the highest responsibility. About such people a poet wrote: "Nails should' have been made from these people, you wouldn't find stronger nails in the world". In the Central region, this is Vladimir Groshev, manager of the Operation & Maintenance Group. A very energetic, creative, knowledgeable and yet quite strict person. In the Western region, this is Aleksey Fomenko. He knows the whole system up to the last screw and finds an approach to each subordinate. The CPC is lucky to have these people, and in the educational plan as well there is someone with whom they can share their experience. Of course, along with them there are many other excellent specialists, it is simply impossible to say about all of them." From his Moscow colleagues Anatoliy Kruglik noted Dmitriy Martynov and Aleksey Mikhailov, intelligent, thoughtful specialists who brought and will bring a lot of benefit to the Company.

"For example, if there is a problem, Aleksey Mikhailov will study it thoroughly, to the smallest detail. You should listen to how he speaks

"The company initially set a very high level of the engineering service"

system, they are true professionals. They launched the CPC pipeline, overcame all difficulties of the initial stage and set a high level of system operation."

At the same time, Anatoliy Kruglik admits that even for such a strong team it would be very difficult to succeed without the support of specialists in the regions, because "you can do nothing only from Moscow; anyway, the main work is in the regions."

on the phone: there people repair the tanks, he is here in the office, but at the same time: "It is necessary to put such a partition here, here you have to twist the screw...". If Aleksey controls work, he knows everything about them."

Anatoliy Kruglik was able to appreciate the professionalism of his colleague to the full extent during the test operation of the hundred thousand tonnes tank at the Marine Terminal.





"Once in 10 years, according to the requirements of regulatory documentation, we must perform a full test operation of tanks. To do this, they must be freed from oil, cleaned, brought to a state for carry out the necessary work, but also to create a regulatory document, the principles of which, after agreement with Rostekhnadzor, could be applied in the test operation of other tanks of this size.

"The staff of the Operations has significantly changed these days. New interesting and ambisious specialists have come. I hope they will carry on the tradition of professionalizm and responsible attitude to assigned tasks"

people to work inside, perform fire work, i.e. clean up so that you do not even know that there was oil. And could you imagine what kind of work it is? It turned out that due to the fact that the washing-out project system did not work well, paraffin residues with a height of up to 5 meters massed up in these tanks. And here's the task – to clean the tank, whose diameter reaches 96 meters. And this is all on the shore of the Black Sea.

As a result, it was possible not only to find companies that are engaged in closed cleaning methods, and to

It was an innovation, because in Russia there were no such documents before, however, as well as such tanks."

FIRST LOVE IS FOREVER

At the end of the conversation, I wonder whether the scientific past influenced the work in the oil pipeline system and whether there were any thoughts to resume research activities, because, as a rule, if you once plunged into this wonderful world, with its discoveries and only its inherent special atmosphere, it is difficult to give up voluntarily.

"During my absence in science, it went far ahead, so it was unreal to return," Anatoliy Kruglik answers. "But it gave me one main thing – a scientific approach. After all, what does the scientific approach mean? Study of the problem, consideration of all inputs, nomination of the hypothesis, and its verification. Actually, we have the same system in the Company, for example, documentation on the technical operation of equipment. Here we have made TO1, TO3, TO6 (maintenance sequence - author's note), as the factory prescribed, and we comply with it. And now we see that between our routine maintenance, some equipment starts to fail. We study the problem, find a solution, either we shorten the period between the services, or we add more diagnostics. And vice versa, with high reliability of the equipment, we serve it less often, it is CPC's money after all. Or, for example, a failure analysis...

Science is a good thing, it gives a person such thing as a methodical approach to solve the problem and exclude accidental uncertainty.

by Ekaterina Krapivko





A Positive Winter

THE CPC ROUTE IS RUNNING THROUGH THE SOUTHERN REGIONS. HOWEVER, EVEN THERE WINTER MAY BOWL YOU OVER.

In the steppe regions of Kazakhstan, in the Astrakhan Region and Kalmykia, winter temperatures can drop down to 30-40 °C below zero. Strong winds are frequent there, the winds which simply knock you off your feet. Winters with frequent changes in temperature from frost to thaw are typical for the Stavropol Krai. Winters in the Krasnodar Krai are softer, but ice rains have become more frequent over the last years. A hallmark of the cold period in Novorossivsk is bora – the north-eastern wind, which sometimes transforms Novorossiysk into an "ice apocalypse".

The Consortium personnel perform their work in all weather ensuring oil transfer into the system and safe operation of facilities. Therefore, it will be helpful to remind the colleagues about the ways to avoid health problems in winter. Let's hear what Konstantin Kartashov, a doctor of Medis, LLC, says.

"Our skin has receptors sensitive to cold 10 times more than receptors sensitive to heat. That is why, the body feels cold more strongly than heat, that is, one may freeze down much faster than warm up," Konstantin says.

"Some people have a specific reaction to cold - cold allergy.

The body responds to a cold snap, like to any other stress, with

adrenaline rush. When exposed to cold, firstly there is a shortterm vessel constriction, and then there is vascular distension, and

> blood flow increase. With prolonged exposure to low temperatures, the situation is reverse: there is vasodepression, which leads to retardation of blood flow and inadequate tissue blood supply. The World Health Organization has officially singled out those

diseases that intensify in cold humid air - bone and joint diseases, asthma, neuralgia and epilepsy. And, of course, ARVI known to everyone."

"Why do we shiver with cold? What are the most effective ways to withstand the frost?"

"Shivering with cold is a sign of muscle contraction that occurs for the purpose of heat loss decrease. Short-term exposure to cold increases muscle tone and strength and even mitigates fatigue. »

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Suitable and adequate clothing and constant movement work like magic! However, to be sure that frost does not reach us, these two factors are insufficient if there is no cold hardening. There are many cold hardening methods – cold showers, wiping with a damp towel, air baths...

A hundred years ago, Dr. Kneipp from Germany personally demonstrated a healthy influence of cold on the body. He suffered from severe pneumonia and recovered from it by bathing in ice water. After his miraculous cure, Dr. Kneipp devoted his entire life to developing a cold-hardening system, and people are still using his technique never ceasing wondering that such an unpleasant phenomenon as cold can cure many diseases so effectively.

It is known that wrapping with a wet cold sheet is one of the most effective ways to subdue a fever. Scientists claim that cold is better for the body than heat. Cryotherapy is now being successfully used for health improvement. Under the short-term exposure to cold, activity of immune system skin elements increases.

"Examples of cold treatment inspire!.."

"I must warn you that there are many contraindications. In no case one should begin cold water treatments if they have cardiac or vascular diseases, or active hypertension. The effect of cold water can exacerbate problems in case of cerebral blood supply disturbance, epilepsy, spasmophilia, inflammatory processes in kidneys, bronchi and lungs, various infectious diseases, as well as severe thyroid function abnormality. Prior to starting the cold showers/bathing it is required to consult a physician, who will tell you how to cold-treat your body in the safest way possible.

Our body itself is very smart. Winter colds force our body to self-adapt: to turn on "heating", i.e. to generate more heat and distribute it properly.

"How can pharmacy products help us at this time of the year?"

"Due to shortened daylight hours, there is less vitamin D3, a universal regulator of the immune system and metabolic processes, developed in the body. This leads to an increased risk of acute respiratory diseases, exacerbation of chronic diseases and even depression. A balanced diet with a sufficient amount of protein, vitamin D3 in preventive doses (Vigantol or Aquadetrim preparations), multivitamin-mineral complexes (Supradin, Duovit, Berokka, Merz), administration of antivirals (Ingavirin, Cycloferon, Amixin) and anti-influenza drugs (Ingavirin, Tamiflu, Relenza) for prophylactic purposes, influenza and pneumococcus vaccination - all this will help keep healthy in the cold season. However, you can use the above-listed preparations only after consultation with a doctor, since there are contraindications!"

"What would you say about safety during work in the freezing cold?"

"Be careful when working with heavily frozen metal parts – frostbites or freezing-on may quickly happen.

I encourage employees to be careful towards each other. For example, one may simply not feel that one's face is frostbitten, but it may be apparent to onlookers that the skin area has turned very white due to a sharp reduction in blood circulation. Help others, especially at temperatures below –10 °C. Keep an eye on your colleagues, direct them... In no case rub a pale skin area with snow or hard cloth. Careful warming up of the pale area will help avoid severe freeze burns at the early frostbite.

When there are rapid changes from thaw to cold, ice-slicks are usual. It is quite easy to get injured on ice. If you slip, the best thing is to tuck yourself up and try to fall sideways to avoid fracture of the radial bone, fracture of the calf bone and cerebral concussion – the most common injuries in the fall. If you are running on ice to help a person, beware of injuries and first look around. Perhaps the fallen person will need help of a doctor on the spot or require application of a transportation splint to avoid complications. All in all, act as in case of any mechanical injury, luckily, the CPC staff is regularly trained as appropriate.

Taking this opportunity let me wish a happy upcoming New Year 2018 and Merry Christmas to the close-knit team of CPC! I wish everyone to keep well and preserve their health, affection, attentiveness and love to each other and to loved ones. Let the ice of trouble, misfortune and fleeting hardships always passe into steam, and serve as a driving force to new successes, achievements, self-improvement and self-fulfillment!"

Interviewed by Ekaterina Suvorova



"A benefit of winter is that the icy air is more oxygenated, and physical exercises have a significantly greater health-promoting effect than in summer. The hardening effect of frost, if handled properly, increases health potential and mood."



FROSTBITE: First aid

SIGNS OF FROSTBITE

DEGREE I

One may tackle on one's own



Skin grows white, then turns red and swells up, tingling and pain appear.

DEGREE II

DEGREE III

DEGREE IV

Professional medical care required



Blood blisters are formed. there is a strong pain.



Necrosis of tissue and subdermal tissue.



Necrosis of deep tissue and bones develops.

First Aid at Frostbite Degree I or at Mild Hypothermia*



Move in a warm dry place. In case of prolonged hypothermia, do not undress; put a hot-water bag on sternum area.



Remove shoes and clothes.



Wrap up warm, give hot sweet tea or coffee, or milk.



Immediately start warming up frozen parts of the body.

Rub with clean hands wetted with alcohol until return of sensation.

Wash the affected area with soap with the help of a warm bath for 20–30 minutes gradually increasing water temperature from 20 to 40 °C.



Dry out, cover with a sterile dressing and wrap up warm the affected area.

- A condition that occurs when the body temperature drops down to 34 °C (skin pallor, shiver, speech difficulties).
- ** A layer of gauze, a thick layer of cotton wool, one more layer of gauze, waterproof cloth or rubberized cloth on top.



DO NOT apply grease or ointment to frostbitten areas.



DO NOT rub skin if there is swelling or blisters.



DO NOT rub with snow.

With degrees II-IV frostbite, NO rapid warming up, massage or rubbing is done.

A heat-insulating bandage** is applied on the affected skin surface and the injured person is delivered to the hospital as soon as possible.





In a Friendly Atmosphere

AT THE START OF 2017, THE IDEA TO FORM A TIGHT-KNIT TEAM OF THE MOSCOW OFFICE EMPLOYEES—ICE HOCKEY FANS FOUND A REAL SUPPORT FROM MIKHAIL GRISHANKOV, DEPUTY GENERAL DIRECTOR FOR RUSSIAN GOVERNMENT RELATIONS, WHO OFTEN TAKES A STICK IN HIS HANDS OUT-OF-WORK HOURS.

In the beginning, it was necessary to think over the concept: there was a task set to engage more employees in ice-skating. In such a way, an idea came up to use a rink not only for ice hockey, but also for open family skating.

The search for the rink was dragged on a little due to variety of offers and quotations in Moscow within the city limits. Of course, we realized that renting the Luzhniki Small Sports Arena was certainly better than a training rink in the Sports Center, as it meant sufficient equipment, spacious changing rooms equipped with everything necessary, a lot of air and first-class ice with markings. On the other hand, a rink of high quality and services required significant amounts to be

paid: amounts, which still needed to be reasoned for and agreed with the CPC management.

Finally, the necessary memos and explanatory notes were prepared, and approvals received. The Commission composed of the CPC staff carried out a comparative analysis and gave recommendations on the selection of the ice arena. As a result, the Canadian training rink on Berezhkovskaya embankment was recognized the most acceptable option, which, unlike alternative arenas, was located close enough to the center of Moscow and was quite acceptable in terms of the cost.

The contract with Hockey-Hall, LLC was signed quickly enough, and the ice rink was first made available



Vladimir Domokurov

to the CPC team in early August 2017. At the same time, via email circulation, the Moscow Office employees were invited to the rink for Sunday family skating. This invitation was of interest to many colleagues.

Ice hockey players were gradually involved in the process; many of them did not play for decades. Nevertheless, the teams got goalkeepers in no time, and the number of players with account of the rink





size exceeded 10 people. We play on Tuesday evenings, with two goalkeepers, in full kit and very organized.

Taking into account the rink size, there are basically four players from each team playing on the rink, plus a few for substitution. Sergei Serikov from the Project and Engineering Department is in the "whites" net, the invited goalkeeper tends goal of the "reds". The strong group is represented by the CPC Operations Department: these are Vladimir Shmakov and Talgat Taubaldiev; the General Business

Department represented by Vladimir Domokurov, Alexei Malakhov, and Oleg Pugachev, plays with confidence; Vasily Samoilov takes part in the matches on behalf of the CPC Security Service, Bauyrzhan Bekenov from the Legal Department, and Vladimir Avrutov from the Finance Department.

Not only 11 staff members of the CPC Moscow office showed a keen interest in the matches, there were also husbands of our colleagues Tatyana Eppel, Natalia Sinitsina, Alexandra Bogoyavlenskaya, Margarita Dolgushina; son of

Rick Vincent, Anton, is constantly involved in playing.

The most important thing is that our group events are marked by high attendance and sports ethics. In the long run, these ice battles are aimed at creating a healthy working atmosphere in the team and keeping fit by the CPC staff. The matches are held in a friendly atmosphere, and undoubtedly play into formation of the CPC corporate spirit.

> by Vladimir Domokurov, Administrative Manager, CPC General Business Department



Greece: From the Ancient Mythology to the Current Days Myths

WINTER HAS COME, BUT THE REMINISCENCES OF THE SUN AND WARMTH STILL LINGER IN MY MIND. LAST SUMMER I REPEATEDLY OPTED FOR MY PREVIOUS YEAR HOLIDAY DESTINATION, THE SITHONIA PENINSULA, CHALKIDIKI, GREECE.



I'm so fascinated with the transparency and tranquility of the sea, unhurried manner and friendliness of the Greeks, the simplicity and abundance of the local cuisine, that this year I had no doubts where I was going. And I'm not alone in my affection... Greece is annually visited by more than 17 million foreigners, since it's sunny for 250 days a year in this country, while the distance from any point of its territory to the seashore never exceeds 137 km.

THEIR LONGEVITY SECRET

The Greeks lead a rather steady life. They are never in a hurry: be it to bring you a menu in a restaurant, or take your order in a rent-a-car center, or give you a scooter or a paddleboat that you've rented.

Mostly they get up early at 5–6 a.m. and go to bed after 11 p.m.,

therefore they are happy to compensate for the lack of night sleep during the afternoon siesta (from 2 p.m. until 4 p.m.). Probably, this is one of the reasons for the nation's long life. Average life length for women is 82 years, while men make it to 77. Grandmas and grandpas live with their families until death. There are barely any old age homes in Greece.

The Greeks are a boisterous nation. They speak loudly supporting their speech with sweeping gestures. When talking to the locals, remember one thing: the sound "nah" mean "yes" in Greek, while denial or refusal is expressed with the "ohi" word.

FAMILY TIES

If you visit a local beach on a weekend, you'll be able to see big families









walking in single file, discussing something loudly.

A Greek family is a really numerous one, that's why celebrations gather as many as up to 250 relatives and friends. Interestingly, the last name of a wife is not changed when she gets married, and the kids are given one of the parents' last name taking into account their own wish.

The Greeks do not divorce mostly, therefore the country has the honor of the lowest divorce rate in the European Union.

IN THE WORLD OF GODS

A traveller said once that there was a time when the number of statues in Athens exceeded the number of the residents. These statues were created by the people for the gods that patronized them in various fields of activities.

The gods patronizing arts and inspiring them during the life were held in special reverence by the ancient Greeks. Athena taught people to love beauty and harmony. Apollo was the god of music. Dionysus created the antique theatre. Hermes made the first lyre and played it to young Apollo. There were also lots of nymphs whose songs and dances pleased every corner of the seashore of Greece.

However, those divine beings were not enough to convey all the affection the Greeks had for the arts. Therefore, Zeus had produced the nine beautiful daughters, the Muses, who gave the world the gifts of music, poetry, dance, and theatre, together with happiness, laughing and delight.









hunger, nor by thirst, singing all life long. So don't be annoyed when you hear the uninterrupted chirring of these insects, but recall the remarkable and kind myth about them.

INSPIRED BY THE MUSE

The Muses inspired not only the Greeks, but many artists, sculptors and poets in different countries. Over the centuries, the labours of Hercules, the torments of Prometheus, and the gallant

adventures of Zeus were embedded in various forms, styles, and techniques by such artists as Botticelli, Rubens, Rembrandt, Dore, and many others.

In the 20th century, Russian artists also dedicated their works to the genre of mythology. Thus, in 1907 Valentin Serov visited Greece, when preparing for his major project on decorating Pushkin Museum of Fine Arts, namely for painting its classical halls. In those years the artist had just begun one of his masterpiece - "The Rape of Europa". As the plot for the painting he deployed the myth of a young Phoenician princess named Europa, the daughter of the king Agenor, with which Zeus got infatuated. Having transformed himself into a bull, the main Olympian god abducted the beautiful Europa on his back to the island of Crete. Serov created several versions of the painting, none of which is deemed as competed. The biggest and the most detailed variant of the Rape of Europa is kept at the State Tretiakov Gellery, but belongs to a private collection.

At the same museum you can find the canvas by Mikhail Vrubel "The Pan" painted in 1899. It's amazing, but the painting was created over a couple of days and is unanimously recognised as virtually the apex of the artist's creative career. Pan in Greek mythology is deemed the poorest, the most inconspicuous and disregarded god. Even his own mother, the nymph Dryope, rejected him. But Hermes, Pan's father, considered his son funny and gave him away to the retinue of Dionysus, the fun loving god of high spirits. The goat legged god of mountain wilds Pan was born in Arcadia, situated in the Peloponnese peninsula, and patronized shepherds and hunters, he loved dancing and singing, but most of all he enjoyed playing the pipe which he made himself. This happened under the following circumstances... When he spotted a beautiful wood nymph Syrinx, Pan fell in love with her at first sight. However, he frightened her with his looks, and the poor Syrinx ran away. The persistent god took off in pursuit. He was about to catch up with her and already thrust out a hand to grip the runaway, but the god









of the river Ladon who heard her cries for help turned Pan's arm into a reed.

Desperate because of his beloved disappearance, Pan watched the reed for a long time. He was about to throw it away when the wind whistled in the reeds and an idea occurred to Pan. He broke up the reed into lots of tiniest pieces and bunched them up with wax. This is how a new musical instrument was invented called syrinx or pipe. In the Russian national folklore, Pan corresponds to the puck named Leshy.

MYTHOPOETRY IS A CONSTANT PROCESS

One can speak eternally about the Greek mythology. Myths give names to seas (e.g., Aegean Sea named after the king Aegeus who threw himself off a high cliff and into the sea believing that his son Theseus was dead), cities (e.g., Athens). Some proper nouns turn into common ones (e.g., self-enamoured Narcissus and Echo), proverbs and sayings are given birth to (e.g., "to take the bull by the horns" – This is how Hercules defeats a frantic Cretan bull in one of the myths).

But sometimes myths are created in our today's life. Everyone knows the Greek Sirtaki dance which is signature of the country. However, there aren't many of those who know the history of its creation. "Sirtaki" means "touching" in Greek. The dance was created in 1964 and actually is not a folk one, nevertheless it combines slow and

rapid versions of the ancient warriors' dance "hasapiko". The music composed by Mikis Theodorakis and the dance directed by choreographer Giorgos Provias were created for the Zorba the Greek movie featuring a famous actor Anthony Quinn. In his memoirs the actor wrote that the final scene where his character Alexis Zorba teaches another character Basil to dance sirtaki on the beach was shot on the last production day. And the day before, Quinn broke his leg and couldn't get along without cast, but he could move, or drag, to be more exact, his leg. Under the circumstances, they made up relevant the choreography for the dance.

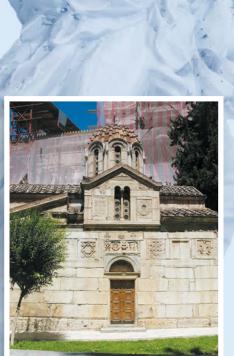
After the movie was released, Sirtaki became the most famous Greek dance in the world and a symbol of Greece. In August of the year 2012 in the Greek town of Volos there was a record set in the number of dancers



of Sirtaki, which entered the Guinnes Book of Records: 5,164 people took part in it.

Russian-speaking tour guides are undoubtedly the best story-tellers when it comes to ancient Greek mythology and the country history. Nevertheless, I recommend buying a 7-volume "Greek Mythology" published in Russian by the Stephanides brothers in local shops to be able to return again and again to the amazing legends of this sunny country.

by Anna Volina



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Chara entered our life less than half year ago, but our first meeting had taken place much earlier.

MIRACLE IN SABLE COAT

I have always dreamt about my own dog. I visited websites of breeding kennels, selecting a breed, a puppy. But everything was wrong. I even began to think that I did not really need a dog, as I had not chosen the breed for so many years. One day the situation changed when I came across a Shetland sheepdog breeding kennel. I had leant toward this breed before - my husband and I had had Collies, and I had been charmed by their beauty, intelligence and character. But at the same time I did not want to take a big dog any more. It is better for them to live in the country, in a detached house.

The breeder posted the photos of the puppies on the website – two boys and two girls. My attention was immediately attracted by a wonderful creature in a sable coat. Although she was very small and shy, I saw that she did have a character. I wrote to the breeder but received a refusal. Soon there appeared an announcement under Chara's photo that she would be left in the kennel for breeding. I got very upset then and I was a bit downhearted for a time, but after a while I returned to my favourite occupation – selection of a puppy. From time to time I visited the site of that kennel. The puppies were sold out very quickly, and Chara's status did not change.

NEW MEETING

A year went by. I visited all of the Shetland sheepdog breeding kennels I found on the Internet but did not find the puppy that could sink into my heart. There were very good and beautiful puppies, but... I did not realize at that time that my heart had already been occupied. I do not know why but I printed 'puppies Shetland sheepdog buy in Moscow' in the search box of the browser. The first link led me to the well-known commercial online market. And I saw her again. I could not believe my eyes. I recognized Chara immediate although within a year she had turned from a shy plush ball into a magnificent beauty. It turned out that she could not be used for breeding because of her dental bite, the breeder hoped that it might be corrected... So it turned out that my girl waited for me.

I immediately phoned the breeder and agreed about the meeting. In a couple of weeks Chara was at home. She entered the flat as if she had been living there all her life.

CAT AND DOG

It is quite surprising that even our cat Melissa who is very jealous and requires a lot of attention to herself





(my daughter still has to hide her headphones, not leaving them anywhere, and she had to forget about Furby almost immediately after she had found it under the Christmas tree), accepted the new family member very peacefully. Though it should be admitted that she followed Chara for several days with a menacing look and frightened the dog by jumping over her suddenly or running under her belly. But soon she stopped doing so and now they are great friends.

Once when Chara was ill Melissa even brought her toy for Chara, showing her sympathy.

CHARA AND OTHERS

On the very first evening Chara and I went for a walk in the nearest park. It was something unbelievable: Chara was so obedient that people could not believe that I had the dog only for a couple of hours. She was not interested in other dogs, she followed me, watched into my eyes and when I stopped, she touched my leg with her wet nose as if asking "Am I going correctly?"

Unfortunately such a long stay in the breeding kennel and the absence of skills to live with humans influenced the dog's psyche: she fears people, especially children, loud noises, motor booming. And when she gets frightened she runs as far as the flex lead allows her. As a result our constant place for walking is a dog run. She feels there protected from the hustle and bustle of the city. In the beginning Chara just watched other dogs and kept at a distance hiding behind me if any other dog invited her to join the game. In a week she took interest in other dogs and now she is one of the most active and noisy participants of the games. All have come but for Chara – can anyone remember such situation?

WHO LEARNS WINS!

As a result of living in the breeding kennel Chara did not know any commands. Although no, she did know a couple of commands: "Come here!" and "Go away!" But Shelties along with Collies are not accidentally considered one of the wisest dog breeds. After two months of trainings that were not very intensive Chara learnt practically all standard commands, mastered the beam and the stairs. It was the most difficult task to teach Chara to follow the command "Lie down!" There are two variants to fulfill this command: from a sitting position and a standing position. The dog handlers believe the latter option is the correct one. Shelties are aware of their worth, they are very proud, that is why Chara did not like to learn to lie down (during trainings a dog is forced to lie down by pressing its back; and in the dogs' language it is not just a sign of domineering but of an awful humiliation).

As soon as Chara realized that she was invited to training she came to me and sat down. I forced her to get up but as soon as I occupied the training position she lowered her back again, and when I was getting angry Chara fell on her back or just ran away. I suffered this way for three weeks and then something in her head changed and she understood what was required of her. During this time she had eaten a great number of treats (for every movement that made her closer to the fulfillment of the command even if it was just by accident),

I even complained to my mum that I would probably have the fattest dog that did not know any commands.

INJECTION OF JOY

If you ask me if my life has greatly changed with the dog I will answer in the affirmative. But those changes as well as the presence of the dog did not cause me any trouble. Those two weeks that I had been waiting for the day when I could take Chara, every morning I thought "What are you doing? It is a dog, a grown dog. How are you going to get up at six o'clock if it is so difficult for you to get up even at seven o'clock?" Well, as the saying goes - where there's a will, there's a way. I did not turn from a late into an early riser with a wave of a magic wand. I still want to sleep in the morning, but that joy that I see in Chara's eyes (she does captivate you with her glance) fills me with energy for the whole day. She loves me so much as if she had known me since childhood. Probably at the very moment when I saw her for the first time there appeared a connection between our hearts, and step by step we found each other.



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