

Vladimir Busygin: «Tatarstan is the capital of plastics»

Nizhnekamskneftekhim Inc. is the largest Russian petrochemical company in terms of the amount and variety of its products. Nizhnekamskneftekhim Inc. was established on July 31, 1967. The first products of the central gas-fractionation plant were sent to the consumers on this day. The Company's production complex embodies 10 major plants, 10 divisions (Railway Transport, Ethylene Pipeline Systems, and others), and 7 centers (including Research & Technology, and Design). Ten years ago the Company drastically reduced the production of its main products but during 2005 their output comprised 39.9 billion rubles in current prices and the output of ethylene, propylene and polystyrene broke the existing Company production records. Vladimir Mikhailovich Busygin, General Director of Nizhnekamskneftekhim Inc. told «The Chemical Journal» about the plans for the Company development and the situation in the foreign and Russian petrochemical market.



– Vladimir Mikhailovich, how could you characterize the situation on the Russian and world petrochemical market? What is the main trend of development?

– Lately market analysts more and more often say that the world petrochemical industry is experiencing a stable growth due to the establishment and development of new plants in the former USSR countries, Eastern Europe and Asia.

If we talk about the Russian petrochemical market, according to the information by the Federal

State Statistics Service, the production of synthetic rubbers in the first six months of 2006 increased by 3% and the market of plastics and synthetic resins – by 5%.

Currently Russia is one of the leading producers of synthetic rubber in the world. Russian petrochemical companies export the significant portion of their products. However, Russian tire works and enterprises producing technical rubber products are also consumers of the rubber produced by Nizhnekamskneftekhim Inc.

We supply butyl and polybutadiene rubbers to our foreign partners. Over 45 types of our products are supplied to 50 countries of the world. The share of Nizhnekamskneftekhim Inc. on the world market of butyl rubber has increased by 25% and on the Russian market it comprises about 70%.

Our Company is the only producer of halobutyl rubber in Russia, which is in high demand and has high rates of consumption growth.

As for the trends of the Russian petrochemical market development, the Russian companies have just started processing their own raw materials while foreign companies have realized long ago that this was much more profitable. However, high cost of investment projects, difficulties in getting long-term credits and long repayment periods make investments in the petrochemical industry less affordable.

Currently the main potential investors are oil-producing companies for they possess enough financial assets. Nowadays when the price of oil on the world market is increasing, many oil-producing companies prefer to export the black gold and get fast and high profits rather than take significant sums out of the turnover for profits in the remote future.

– If we compare the Russian and foreign petrochemical industry, what similarities and differences can we talk about? What problems, in your opinion, are characteristic only of the Russian petrochemistry and how can they be solved?

– The main problem of the Russian petrochemical industry is still the significant physical deprecia-

tion of equipment and the low level of technologies. It is a catch-22 situation – low technical and economic characteristics of the products and losses in the sales lead to the absence of financial resources for technical development.

Nearly all petrochemical productions in Russia are based on the scientific and technical achievements of the 1970-85's. The average degree of depreciation comprises 70-90%. Owing to a critical situation in the Russian scientific and technical sphere the supplies to the market of perspective developments of import-substituting technologies and equipment have been almost stopped.

The latest growth of prices in raw materials, energy resources and taxation have increased the trend of deterioration of the chemical productions in Russia. Moreover, I would like to point out that science and production are not working together and presently this is an important factor for the development of any enterprise.

– Has Nizhnekamskneftekhim Inc. got rid of the past? Have you managed to update the production structure?

– The further improvement of our enterprise efficiency depends

chiefly on the innovative solution of production problems. We understand the term «innovation» in a broad sense – from the use of modern equipment, advanced technologies to efficient management systems.

It's a wide-known fact that the end purpose of any enterprises activity is to obtain the maximum profit, which is achieved by the rational use of the raw materials and proper choice of processing technologies. The optimization of supplies and implementation of advanced technologies are the achievements of Nizhnekamskneftekhim Inc. The scientific and technical achievements provide for high-quality production with reduction of energy and raw materials use, which makes the production not only economical but also ecologically safer.

– How do you see the strategy of the Company development and is it connected with the strategy of the Russian petrochemical sector development as a whole?

– I think that the Russian petrochemical industry needs stronger governmental support and a specially developed strategy, which would encourage the manufactur-

VLADIMIR MIKHAILOVICH BUSYGIN was born on November 14th, 1949 in the town of Krasnokamsk of the Perm Area. He graduated from Krasnokamskiy Pulp and Paper Technical School. After that he worked as an operator for the Berezниковskiy nitrogen fertilizer plant. Within seven years he was promoted to the position of the deputy machine shop manager.

After graduation from the Perm Polytechnic Institute he took different positions: from 1981 to 1986 he was the head of the production and technical department of «Rososhan Chemical Plant», then the head of the engineering and technical department of the Severo-Donetskiy production office of the trust «Orgminudobreniya». In 1987 he was appointed Commissioning Director of «Novomenedeleevskiy Chemical Plant».

From 1988 to 1992 he was Chief Engineer of the production association «Chemical Plant named after L.Ya. Karpov», later – Technical Director of the Joint Russian-Czech Enterprise «Mende-Rossi».

In 1995 he was appointed General Director of JSC «Chemical Plant named after L.Ya. Karpov», and in January 1999 the government of the Republic of Tatarstan appointed him General Director of Nizhnekamskneftekhim Inc.

In 2001 he received the State Award of the Republic of Tatarstan in the sphere of science and technique. V.M. Busygin was awarded with the title «Laureate of the State Award in the sphere of science and technique». He is also a laureate of the award «Russian National Olympus» in the nomination «Manufacturer of the Year». In 2003 he received the annual national award «Person of the Year» for successful realization of social programs.

Nizhnekamskneftekhim Inc.

During the last 5 years the Company has started new productions and has developed the existing ones:

1. SKI-3 – the production line was built in the Soviet times. The reconstruction is in progress for production of polymer, the characteristics of which are similar to those of the lump rubber or even better than those. Nizhnekamskneftekhim Inc. is the main producer of SKI-3 rubber. Its share in the all-Russian production comprises 44.5%.
2. The experts of the enterprise started the production of high-stereoregular rubber on neodymium catalyst (SKD-N) or polybutadiene, the characteristics of which are better than those of all currently existing makes. The main producer of this kind of rubber, Bayer Company, was forced to reduce its production because it failed to win the competition with the Nizhnekamsk polybutadiene. About 75% of SKD-N produced by Nizhnekamskneftekhim Inc. is exported.
3. Butyl rubber is a unique polymer, the secret of production of which is in possession of only three countries. Nizhnekamskneftekhim Inc. was the first to produce it. Nowadays the company is producing all the existing grades of butyl rubber.
4. Halobutyl rubbers are produced in Russia only by Nizhnekamskneftekhim Inc. The idea (license process) was bought from JSC NII «Yarsintez» (Yaroslavl), but all the stages of the process were developed by the experts of the Company. The pilot installation was built at the plant. The test batches were sent to the consumers directly and they expressed their complaints and wishes. The experts of the company designed the main production unit on the basis of the received complaints and wishes of the consumers. Today the plant produces 1.5 thousand tons of halobutyl rubber per year and the demand for this product is significantly higher than the supply.
5. The first polymer product of the Company was polystyrene. Its production was started in 2003. Currently two capacities of the polystyrene plant are working with the annual output of 100 thousand tons per year, producing two types of polystyrene – general and shockproof.
6. Currently Nizhnekamskneftekhim Inc. has the license for production of over 80 kinds of polypropylene. The polyolefine plant will produce all types of polypropylenes: homopolymers, terpolymer, statistical and shockproof copolymers. Polypropylene is used in the production of household appliances and car spare parts, for the production of biaxial-oriented, tubular and soft-fiber films, packaging materials and disposable dishware by the extrusion method, injection or blow molding.

The project payback period is five years. After launching the commercial polypropylene production, Nizhnekamskneftekhim Inc. will be the largest producer of this kind of plastic in Russia. Mintimer Shaimiev, the President of the Republic of Tatarstan, pointed out that this production is crucial for the economy of the Republic.



ers to produce highly-technological end products. This requires additional expenses, investments in the science and research, which is conducted at the major enterprises.

We should also remember about the importance of highly-qualified staff, the lack of which is a serious problem at many petrochemical enterprises.

On the other hand, we shall talk about more particular programs for the development of the whole Russia industry. Maybe this will be realized by establishing major



On the left: during launching the polypropylene production, October 2006. President of Tatarstan Mintimer Shaimiev, President of Tecnimont Company Rosario Alessandrello, General Director of Nizhnekamskneftekhim Inc. Vladimir Busygin and General Director of PSC TAIF Albert Shigaboutdinov are participating in the opening ceremony.

integrated holdings, affiliation of companies or in the specialized program intended for improvement of efficiency at specific enterprises. Our corporation will continue its work within the President program of the oil and gas complex of the Republic in 2004-2008, and within the Republic program for the development of innovative activities and a number of other programs.

Other major oil and gas chemical enterprises of the Republic of Tatarstan have the same policy, which provides for the solution of

the problems on the whole and of course foresee the nuances of the further development strategies.

I would like to point out another important aspect, namely, the development of processing of the products within the region. On the basis of our joint-stock company, a few years ago the Nizhnekamsk industrial area was established, which presents a mechanism for acceleration of growth and establishment of new productions and enterprises. Our purpose is not to stop at what has been accomplished, and to establish a self-de-

veloping chain from raw materials to end products.

According to the plans, by 2008 about 800 new jobs will be created and the budget of the Republic of Tatarstan will get over 200 mln. rubles from the new productions. By 2010 the annual payments to the budget will comprise 600 mln. rubles from the newly established enterprises within the area.

– The goals for 2006, i.e. the introduction of polypropylene production and ethylene complex modernization, have been

accomplished. What do your consumers think of the launching of the new production?

– That's true. Within the last seven years the Company has done a lot for the reconstruction and development of the existing production lines as well as construction of new ones.

We have started producing new types of products – chlorine and brominated butyl rubber, polystyrenes, new makes of polyethers, rubber SKD-N, polypropylene, isoprene using single-stage method. The capacity of the ethylene complex has been increased. The construction of the cogeneration plant for steam production is being completed.

Speaking about the reaction of the consumers, we can say that we constantly have to increase the amount of the output of almost all kinds of our products. And if you want specific examples, then, for instance, our halobutyl rubber was higher appraised by the experts of Michelin, which certifies and buys it for its production. Moreover, Pirelli, Goodyear, Continental also gave a positive appraisal of our halobutyl rubber.

Currently we are carrying out negotiations about the sale of our polypropylene, but it's already obvious that there are more than enough consumers of this product. Nizhnekamskneftekhim Inc. produces over 100 types of products.

But we are most proud of our polymer productions – SKI-3, SKD-N, butyl rubber, halobutyl rubber, first of all, chlorine and brominated butyl rubber, polystyrene and now also polypropylene.

We are the largest producer in Russia of some of the products. A number of our products have unique characteristics and have no analogs neither in Russia, nor in the whole world.

– Are the new products, in particular, polypropylene, intended for the Russian or foreign market?

– The current output of polypropylene produced in Russia is less than 300 thousand tons per year, but the demand is appraised at 1.2 mln tons per year.

Nowadays there are only three enterprises in the Russian Federation, which produce this type of polymer products. The

most part of it is bought abroad at the price of over one thousand dollars for a ton. We are planning to produce 180 thousand tons of polypropylene per year, most of which (70%) will be sold at the Russian market, in the structure of which there is still an unoccupied niche.

– Vladimir Mikhailovich, what are the plans of the corporation for the next 5 years?

– From 2006 to 2010 an extensive program for reconstruction and technical re-equipment will be implemented at Nizhnekamskneftekhim Inc. It includes the further modernization of the ethylene complex, increase of the capacities of butyl rubber or halobutyl rubber production, SKD-N, construction of new divisions for production of polyethylene, expandable polystyrene, divinyl-styrol synthetic rubber, ABS resin.

As for polyethylene, Nizhnekamskneftekhim Inc. is planning to produce grades of polyethylene, which are not produced by any other company in Russia. And due to increase of DSSK rubber production, the corporation will be the leader in rubber supplies.