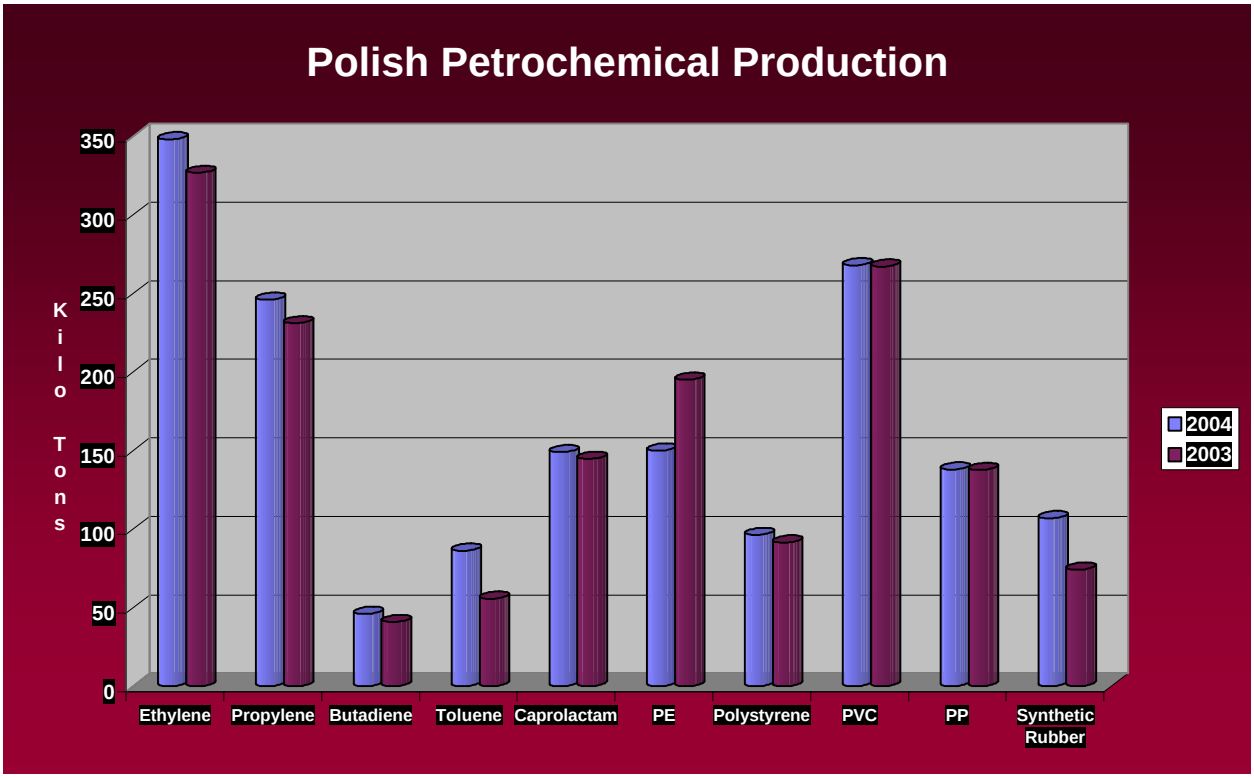
CIREC MONTHLY NEWS
Chemical Industry News for Central Europe, South East Europe and Eurasia
Edited by Andrew Sparshott | Tel +44 (0)20 8669 5126 | Email enquiries@cirec.net | Web www.cirec.net
Czech Republic | Slovakia | Hungary | Poland | Bulgaria | Romania | Croatia | Slovenia | Yugoslavia | Baltic States | Russia | Belarus | Ukraine | Transcaucasus | Central Asia | Kazakhstan
Issue 172, 23 March 2005

Features from the fourth issue in 2005

- In 2004 Slovnaft increased its EBITDA by almost three fold reaching SKK 16.4 billion. The most important factor influencing profitability of the company was the uninterrupted operations of all production units. Other factors included synergies resulting from integrated operations within the MOL Group and continuous internal efficiency improvements.
- Existing capacity for ethylene production in Russia stands at 2.9 million tpa, which probably at best is capable of producing no more than 2.2 (or possibly 2.3) million tons in any one year. Nizhnekamskneftekhim and Kazanorgsintez are the main producers that are planning expansions in the next few years, but there are other expansions taking place at Kstovo and Salavat. The graph on the back page illustrates the expansion in capacity up to 2010, in line with ethylene consuming capacity.
- The Russian Federal Property Fund increased the bottom price of 100% of the shares of Polief from 1.638 billion roubles to 3.338 billion roubles. The starting price is 4.718 billion roubles. The final date for submitting applications for participating in the auction has been moved to 18 April from 11 May. The minimum selling price of the shares is 3.34 billion roubles. Gazprom is ready to shell out more than $300 million for the purchase of Polief. PTA produced at Polief would be used at SIBUR-PETF, as currently PTA is purchased from South Korea. About $200 million is thought to be needed for completion of the plant.
- Construction work has been completed at British Vita's new greenfield plant at Paks in Hungary. The buildings were handed over from the contractors on 21 February 2005 in preparation for the imminent arrival of foam manufacturing plant. It is anticipated that installation and commissioning of equipment will be completed during the second quarter of 2005 and production will commence soon after.
- Orlen has stated that it is not ready to watch important assets in the Polish chemical industry be sold off to outside interests. Orlen argues that it has been operating closely with the other companies in the Polish chemical industry for many years, and that the management of Orlen intends firmly to participate in the privatisation of Tarnow and Kedzierzyn.
- The Belarussian government has granted Mogilevkhimvolokhno around $5.5 million for working capital. The finance will be used to buy paraxylene and MEG, a deficit of which has faced the company constantly in recent months. The combination of a lack of finance and the difficulties in securing raw materials from Russian suppliers has created operating problems for Mogilevkhimvolokhno.
- A rough estimate of $3.8 billion has been cited as necessary for the development of the petrochemical industry in Kazakhstan, up to 2015. Discussion areas on the background factors behind the investment concept are focused on what types of technology would be used, and the potential for developing a petrochemical sector that could compete successfully in the world market.



PKN Orlen Q4 2004

PKN Orlen's petrochemical division increased revenues by zl 332 million for Q4 2004 with a slight improvement in the volume of sales to external customers by 1.1%. In Q4 2004, the sales value for Orlen and Anwil showed increases for ethylene by 28.6%, propylene 53.8%, benzene 165.5%, ammonium nitrate 21.0%, PVC 14.2%, and CANWIL 8.3%. The crack margins were $579.8/ton for ethylene and $478.8/ton for propylene, which means an increase by 58.1% and 69.4%, respectively, over Q4 2003. During the fourth quarter Orlen processed 3,327,000 tons of crude oil and a total of 12,654,000 tons for the whole of 2004. High demand for PVC and fertilisers helped increase profits levels. Orlen increased total operating profit in the fourth quarter by 116%, due primarily from profits from the chemical division followed by improvements in the refining division. The chemical division's profit was much greater, at 207.9%, if the contribution of Orlen's business to Basell Orlen Polyolefins is taken out of the equation.

In financial terms, this contribution amounted to zl 112 million. In physical terms, it means that the transfer of Orlen's polyolefin production capacity to BOP has meant that the company is principally involved in that product area as a jv partner in the provision of feedstocks. Monomer capacity is now divided between Orlen (for ethylene oxide, VCM and other derivatives) and BOP for polyolefin production.

CENTRAL & SE EUROPE

Czech Republic

(Czech crown, Kc, Mar 22, $1 = 22.649, €1 = 29.919)

Unipetrol

On 11 March, the Management Board of PKN Orlen delivered the notification issue concerning PKN Orlen's purchase of 62.99% of Unipetrol to the European Commission Directorate General for Competition. Delivering the application is necessary for fulfilling the last of suspending conditions concerning achieving the acceptance of the right anti-monopoly office.

The purchase of Unipetrol shares is the biggest Polish foreign investment, strengthening the position of PKN Orlen as the regional leader in crude processing, and also as an important petrochemical producer. The total production capacity of Orlen and Unipetrol refineries will create a strong position in the oil processing

sector, whilst some petrochemical synergies also exist. The Anwil-Spolana tie-up would provide Orlen with a competitive position against BorsodChem in Central Europe.

Slovakia

(Slovak crown, Kc, Mar 22, $1 = 29.343, €1 = 38.762)

Transpetrol
Tatneft has confirmed its interest in purchasing 49% of shares in Transpetrol which belongs to YUKOS. Transpetrol manages the transit oil pipelines on Slovakia's territory, and is the operator of the Slovak section of the Druzhba oil pipeline with a length of 515 km and a capacity of 21 million tpa. YUKOS purchased 49% of Transpetrol shares for $74 million as a result of the privatisation tender in spring 2002. The government of Slovakia owns 51% of Transpetrol's shares. The implementation of the first phase of the project of the Odessa-Brody main oil pipeline, to pump light crude to Kralupy, depends on Transpetrol's position.

Slovnaft
In 2004 Slovnaft increased its EBITDA by almost three fold reaching SKK 16.4 billion. The most important factor influencing profitability of the company was the uninterrupted operations of all production units. Other factors included synergies resulting from integrated operations within the MOL Group and continuous internal efficiency improvements. Revenues were boosted by higher petrochemical prices on European markets.

In 2004, the capital expenditures and investments into modernisation of production units, service stations and ecology projects reached SKK 6.7 billon representing an increase of more than SKK 1.0 billion compared to 2003. Part of the investment was focused on the new polypropylene production unit which is planned to be put into the operation in 2005.

Hungary

(Hungarian Forint, Mar 22, $1 = 186.18 €1 = 245.94)

British Vita
Construction work has been completed at British Vita's new greenfield plant at Paks in Hungary. The buildings were handed over from the contractors on 21 February 2005 in preparation for the imminent arrival of foam manufacturing plant. It is anticipated that installation and commissioning of equipment will be completed during the second quarter of 2005 and production will commence soon after.

British Vita is investing €7.9 million in the new Vitafoam production facility, which will manufacture flexible polyurethane foam and offer foam conversion facility for the strategically important region of Central and South East Europe. The state-of-the-art plant will have the same equipment and design used at the company's greenfield sites in Poland and Lithuania and will supply the full range of foam products needed by customers in this region.

TVK
On 8 March, there was a breakdown in TVK's Olefin-2 Plant due to a weld break, and as a result non-toxic propylene was released. The Olefin-2 Plant was stopped which suppressed the failure and the re-start took place several days later. Thus, only a marginal loss in production has been recorded.

Poland

(Polish zloty, z³, Mar 22, $1 = 3.007, €1 = 4.065)

Nafta Polska
ConocoPhillips has met with Nafta Polska to present their development strategy regarding PKN Orlen. According to sources, the company is interested in participating in the process of privatising PKN Orlen, although there are suggestions that Nafta Polska would rather the concern participated in the privatisation of Grupa Lotos.

Nafta Polska will begin operating in its new form from July despite numerous opinions that it should be liquidated. Nafta Polska proposes to expand its functions and give itself authority over companies

transporting oil and fuels. One possibility is that Nafta Polska could also become one of the investors constructing the Odessa-Brody Ukrainian pipeline.

Orlen's plans for the Polish chemical sector

Orlen has stated that it is not ready to watch important assets in the Polish chemical industry be sold off to outside interests. Orlen argues that it has been operating closely with the other companies in the Polish chemical industry for many years, and that the management of Orlen intends firmly to participate in the privatisation of Tarnow and Kedzierzyn.

Orlen sees the current stalemate in the privatisation process to represent a negative scenario for the industry as a whole, as it delays investment decisions. If successful in acquisitions the company intends to merge plants in Kedzierzyn and Tarnow with Anwil, and later try to achieve synergy with its subsidiaries in Unipetrol. Orlen is considering the construction of a new pipeline, which would merge logistics systems with Unipetrol. The investments would take up to 3-4 years.

Olefins

The expansion of the Orlen cracker is expected to be completed this year to support the introduction of the new BOP units. In 2003, ABB Lummus won a $165 million contract to expand an ethylene plant in Poland, a project that will substantially increase the country's ethylene and propylene production. Under the terms of the contract, ABB has revamped the 25-year-old plant, which was based on ABB Lummus technology. New technology will increase PKN's ethylene capacity from 360,000 tpa to 660,000 tpa and propylene capacity from 130,000 tpa to 315,000 tpa. In addition to propylene from the cracker the FCC at Plock produces an additional 90,000 tpa. Other petrochemical projects which Orlen is considering include a new ethylbenzene plant, a project that would be undertaken with Dwory.

PKN Orlen's Production (unit kilo tons)

Product	*2004*	*2003*
Propylene	217.7	201.0
Ethylene Glycol	105.0	96.7
PVC	221.2	216.9
Butadiene	46.0	40.9
Toluene	86.2	55.6

Source : PKN Orlen

ZA Pulawy

The Polish producer of melamine and caprolactam ZA Pulawy has repaid its debts of around $35 million PGNiG, of which $5 million was purely interest. The debts were accrued in the period 2001-2002 for gas supplies. ZA Pulawy is one of the largest consumers of gas in Poland, consuming around 800 million cubic metres per annum.

PET

The Polish PET market is estimated currently to be worth about 200,000 tpa, having grown around 7% in 2004. For the most part, market share is divided between Grupa Boryszew through Elana PET, and SK Eurochem. The new unit installed by SK Eurochem at Wloclawek that is ready to start has a capacity of 120-140,000 tpa of ÐÅÒ bottle grade resin. The aim is to increase capacity further up to 200,000 tpa. Grupa Boryszew, the company which owns three PET units, has a total capacity of 125,000 tpa. This year Grupa Boryszew plans the construction of two lines for the production of polyester fibres. In addition, the company plans to enter on the market of food packaging in the next year.

At the start of 2005 the Nemuno Banga Group acquired the Czech PET preform manufacturer Eko PET, which is located close to Prague. The company was chosen due to its attractive geographical location and auspicious business environment. The equipment is planned to be improved and the first machines to produce multi–layer preforms will be installed.

Romania

Rompetrol

Rompetrol has increased its stake in Rompetrol Rafinare (Petromidia) by 2%% up to 81.12%, following a capital increase which the group put forward. Rompetrol controls 52.65% of Petromidia shares through the Rompetrol Group Holland to which adds the 16.08% stake held by Rompetrol Financial Group Bucharest. Petromidia's share capital has been increased recently by more than €98 million.

The Petromidia ethylene cracker has not operated since 1996. The capacity is 200,000 tpa, and there are also idle units for LDPE (with a capacity of 60,000 tpa) and HDPE (with a capacity of 60,000 tpa). Rompetrol has already started the pre-marketing of HDPE and LDPE through polyethylene imports, and achieved more

than $100 million in sales in 2004. In terms of potential the Black Sea has ethane rich petrochemical feedstocks which could provide future opportunities for projects in Romania.

Romanian company news
Henkel Romania reported a turnover of 2,360 billion lei (€58 million) in 2004, compared with 1,890 billion lei (€50 million) in 2003, so the growth rate stood a 15%, after it had reported a 17% rise in 2003. The sums include the adhesive division, and Henkel Bautechnik Romania, operating a factory opened five years ago in Bucharest. Henkel entered the Romanian market in 1994, and sells in Romania clothes detergents such as Persil, Perwoll, Rex, and its main competitors are Procter & Gamble (Ariel, Tide and Bonux) and the Unilever (Dero and Omo).

The Sinteza Group, which includes chemical companies Sinteza and Chimprod Oradea, estimates a 20% rise in the 2005 turnover, with sales to reach around €7 million. The group's 2004 turnover stood at €5.7 million, close to the level estimated at the start of 2004. Sinteza produces pesticides, dyes, paints, pharmaceuticals and packaging, recorded a 10% in turnover versus 2003. That year the company posted sales of around €3 million, according to the Finance Ministry. Around 65-70% of Sinteza's clients are on the domestic market. The company is owned by the Employees Association (51.65%), the remainder of the shares being owned by companies and individuals (with participations below 5%).

EURASIA, COMMONWEALTH OF INDEPENDENT STATES

Russia

(Rus rouble Mar 22, $1 = 36.420, €1= 36.385)

Investment in the Russian chemical industry
Foreign investments in the Russian chemical industry totalled $765 million in 2004. The most important country sources of investment were Switzerland ($343 million), Germany ($161 million) and China ($101 million). Although the criteria is not known current investment amounts are estimated by the government to be around four times below the minimum level required for the successful development of chemical sector, and 2-2.5 times less than necessary for modernising the fixed capital in the industry overall.

South Korean Exports to Russia (unit-tons)

Product	*2004*	*2003*
PET	225,675	308,184
Isogametes	5,025	2,837
PTA	1,012	418
Maleic Anhydride	417	444
UPRs	85,634	133,399
Polystyrene Expandable	36,864	29,855
Polystyrene Foam	3,892	8,288
ABS	6,759	11,563
Polystyrene GP-HI	1,576	6,656
HDPE	9,734	10,043
LDPE	8,368	5,485
Polypropylene	8,896	8,080

South Korean Imports from Russia (unit-tons)

Product	*2004*	*2003*
Methanol	2,509	-
Caprolactam	19,866	32,423
PVC	2,112	2,732
N-Butanol	1,050	-
Phenol	2,149	1,808
Acetone	916	-
Bisphenol A	-	1,826
Polyamide	1,466	-

Thus, despite the growing consumption levels there is still insufficient capital coming into the industry, although there are selective exceptions to this rule. Probably the major Russian region for investment is Tatarstan for both Kazanorgsintez and Nizhnekamskneftekhim. The involvement of LG is crucial for a number of projects at Nizhnekamsk including olefins, polyolefins and polystyrene. In the first stage of construction of a complex the volume of investments by LG is estimated in the range of $1.3 billion. There are no other examples of foreign involvement in Russian petrochemicals and in most cases investment is aimed at reconstruction and modernisation of existing facilities, or construction of small plants.

The largest area of product investment is in polyolefins. Overall, polyethylene is more or less in balance with total production being matched by total consumption. In the second half of the decade whilst consumption will grow strongly a number of new projects will push capacity well ahead of demand by 2010. Being able to use this capacity to its full level depends on other investments taking place in monomer production and this will show up in

investment figures in the next two or three years. The situation also applies to polypropylene where a jump in capacity is needed for rising consumption, but will put pressure on propylene monomer availability.

If most of the known polyolefin projects take place, which seems likely, it will mean that there should be some surplus of polyethylene available for export, possibly with China as a target. The problem with West Europe as a destination is that Russian producers would be competing with Central European producers which are EU members, not to mention the Middle East, so opportunities may be limited. Already polymer trade is relatively small with the EU, with the major products being methanol and styrene and the latter of those two products may not continue for much longer.

SIBUR/Gazprom

SIBUR's investment strategy 2005
SIBUR invested a total of 2.393 billion roubles in 2004, and this number is expected to rise to 12.575 billion roubles in 2005 with focus on a total of 136 ongoing projects. Of this total, 2.410 billion roubles will be invested into new projects; 4.467 billion roubles will go into production, 1.759 billion roubles into general infrastructure expenditure and 3.157 billion into capacity expansions.

New company
The SIBUR Board has approved the plans put forward by Gazprom for a new company, based on 100% ownership by Gazprom. Consolidated debts, including interest, of SIBUR at the start of 2004 totalled 67.86 billion roubles. In the shares of the new company debts of SIBUR will be converted at a rate of 40.1 billion roubles.

According to the schedule of formation of this new company, in March and April 2005, an independent appraiser will appraise stock holdings and shares in gas and petrochemical enterprises for their inclusion. Results of the appraisal will be subject to approval by Gazprom.

SIBUR-Neftekhim Production (unit-kilo tons)

Product	*Jan-Feb05*	*Jan-Feb04*
Petrochemicals	117.0	110.7
Ethylene	38.2	34.8
E Oxide (merchant)	13.3	10.7
E Oxide (captive)	30.6	15.6
MEG	27.9	27.0
DEG	3.0	3.3
TEG	1.9	0.2
Propylene	20.3	17.7
Benzene	13.4	12.2
BBF	11.5	8.2
C5	3.5	3.7
C9	1.7	2.6
EDC	15.6	13.0
PVC	5.3	5.8
Caustic Soda	15.4	12.7
Chlorine	2.5	1.8
Plasticizers	4.3	7.1
Ethylene chlorohydrin	2.6	1.8

In the period from May to July 2005, draft versions of the new company formation will be prepared. Within SIBUR itself and its subsidiaries and affiliates, meetings will take place where transactions related to the inclusion of assets in the new company. Authorised capital stock will be approved in compliance with Russian corporate regulations. The constituent assembly is scheduled for the end of June.

Plans for July and August imply state registration of the new company. The re-registration of proprietary rights to stock holdings. In September 2005, issue documents will be registered with the Federal Financial Market Service, and shares of the company will be deposited on shareholders' accounts. Also in September, the Board of Directors of Gazprom plans to discuss takeover of the new company shares. The new company establishment process will be complete before the end of Q3 with Gazprom taking full control in October.

SIBUR shareholders will conduct a general meeting to discuss the sale of the new company shares to Gazprom. The process of establishing the new company will be complete before the end of Q3. Perhaps still early days, but this may turn out to the he most important development in the Russian chemical industry since the emergence of SIBUR in the late 1990s.

Astrakhan
Gazprom is planning three projects for the Astrakhan region involving the processing of gas condensate. One of the three projects being assessed is the construction of a polyethylene plant, the other two being the

production of fuel and electricity. Astrakhan as a potential location for polyethylene has some interest due to its proximity to the Volga river.

Nizhnekamskneftekhim

Preparations are underway for the start-up of the second 50,000 tpa polystyrene section at Nizhnekamskneftekhim which will take total capacity to 100,000 tpa. The value of the project is 1.566 million roubles. Start-up is expected in May 2005; the granulation and polystyrene packaging line has already been installed.

In June 2005, Nizhnekamskneftekhim will start to receive the equipment for constructing the new polypropylene plant based on Basell license. The original plan was to build a plant with a capacity of 120,000 tpa but this has since been revised to 180,000 tpa due to domestic shortages of polypropylene. Basell has supplied Nizhnekamskneftekhim with all the project documentation, whilst Tecnimont will be the main contractor in conjunction with VNIIPneft. The total value of the project is $154 million and start-up is expected in May 2006.

At the oligomer plant Nizhnekamskneftekhim has undertaking new experiments into the use of propane-propylene fractions for the production of propylene trimer. The first stage of the modernisation includes the reduction of raw material losses in the production process. As a result propylene wastage has been reduced from 1.165 to 1.133 tons of propylene for each ton of trimer produced. Further work on modernisation is being carried out.

Bashkortostan

Bashkortostan has relaunched plans to try and create a vertically integrated refining and petrochemical company that would be more capable of attracting investment than the current muddled set-up. The aim is to de-privatise the Ufimskiy and Novy Ufimskiy refineries, Ufaorgsintez and Ufaneftekhim before preparing them to join in one group. At present relations are good between Gazprom and Bashkortostan and both parties have expressed their satisfaction in the partnership relations that were created two years ago. Transferring Salavatnefteorgsintez trust management to Gazprom has had a positive effect on the plant operations. New faculties have gone onstream, whilst profits from production are increasing. It is quite possible that Gazprom could use Salavatnefteorgsintez as the anchor to a petrochemical holding company in Bashkortostan, although gaining control of the Ufa plants may not be a straightforward process. At the moment Bashkortostan is divided between the Ufa plants in the north and the Salavat and Sterlitamak plants to the south of the republic, and there is not much integration between the two sub-regions. If anything, the south seems to have more of a basis for a fully integrated company.

In February, Japanese companies visited Bashkortostan to assess business opportunities in the chemical sector, amongst other industries. As a result of the visit Mitsubishi and Mitsui declared readiness to conclude the long-term contract on purchase styrene and butyl alcohol produced at Salavatnefteorgsintez. The Japanese companies also offered to re-equip the Kaustik laboratories.

New EPS plant

On 9 March Salavatnefteorgsintez started up its new 10,000 tpa foam polystyrene plant which it has built with support from Sulzer. The company claims that the plant has a high degree of automation, and meets the state of the art production techniques. Demand from domestic customers already outstrips production capacity of the plant. The unit will facilitate the production of ecologically pure product that can be used in all the construction sectors and in the production of package materials.

Salavatnefteorgsintez

Salavatnefteorgsintez (SNOS) processed 6.258 millions of crude in 2004, including 3.611 million tons of oil and 2.647 million tons of gas condensate. In total, processing increased 0.7% over 2003. In the petrochemical division benzene production increased by 36.8%, ethylene by 5%, polystyrene by 13.7% and styrene by almost 300% following the start-up of the new plant in September 2003. Other increases were seen for polyethylene at 3.5%, polystyrene 13.7%, 2-EH at 4.4% and ammonia 7.8%. Falls in production were noted for toluene by 4.3%, DOP by 5.5% and products produced from polystyrene by 2.8%.

Since Salavatnefteorgsintez started co-operation with Gazprom there has been some good progress,

including the start-up of bitumen unit with a capacity of 300,000 tpa. Other important projects being considered or being undertaken by the company include the modernisation of the EP-300 plant where new furnaces are being introduced by ABB Lummus Global. They provide higher selectivity for ethylene production, thus increasing volumes and reducing costs. Productivity of the new furnace is estimated at 1.8 fold higher than at present, with 97% efficiency.

Polief

The Russian Federal Property Fund increased the bottom price of 100% of the shares of Polief from 1.638 billion roubles to 3.338 billion roubles. The starting price is 4.718 billion roubles. The final date for submitting applications for participating in the auction has been moved to 18 April from 11 May. The minimum selling price of the shares is 3.34 billion roubles. Gazprom is ready to shell out more than $300 million for the purchase of Polief. PTA produced at Polief would be used at SIBUR-PETF, as currently PTA is purchased from South Korea. About $200 million is thought to be needed for completion of the plant.

The first production of PTA on a pilot basis has been scheduled for the near term at Polief. Electric power has been connected to the unit plus other facilities such as steam from the Priufimsky thermal power station. All functions of the technological process are being carried out with the automated control system Yokogawa CENTUM CS3000. Polief has also introduced a unit supplied by Electrolyser of Canada for the PTA unit.

The impression is that there is a real prospect that the plant will be able to take raw materials by the end of the year (paraxylene, acetic acid and butyl acetate) and to produce the first batch of PTA. Firstly, however, it is necessary to finish civil and construction work and to secure capital for the purchase of raw materials, reagents, catalysts, etc.

Nizhniy Novgorod

In 2004, the Dzerzhinsk region saw an upturn in chemical production after five years of falls. SIBUR-Neftekhim for example, made a profit of 500 million roubles in 2004 against a profit of 176 million roubles in 2003. Another plant that saw better activity in 2004 was the Sverdlov plant where turnover increased 37% to 2.2 billion roubles.

An important event for Dzerzhinsk in 2004 was the return of Korund to full activity following the takeover by new owners. Having achieved the first stage of reviving plant production last year the new ownership of Korund is now entering the second stage of the programme which involves the modernisation of a number of units. Korund produces a wide range of products, some of which were only introduced at the start of the 1990s. These included cyanide salts, PVC pipes and polyurethanes. The start-up of the Akrilat acrylic acid and ester units in late 2004 marked the completion of the longstanding project of more than fifteen years. Around 700 people are employed at the complex.

Akrilat

Having started up last year on 18 November Akrilat now plans to invest around $450 million by buying more equipment from Japan, backed up by Japanese credit. The Russian bank Petrocommerce would also be involved in supporting Akrilat in the credit risk. Akrilat is seen as a very important complex not only for the Dzerzhinsk region but also the Privolszhkiy region. Already the company has taken on long term orders in the range of three to five years and there are plans to expand existing capacities.

Korund

Korund is to conclude contracts in the near future with German and Swiss engineering companies for the construction of a plant for the production of isocyanates, both MDI and TDI. The capacity of the new plant would be 60,000 tpa and would be completed in the 2008-2009 timeframe. The cost of the project is placed at $70 million, or greater. Korund is examining a number of ambitious plans and could invest a total of $500-600 million for the development of new products, both organic and inorganic, including suspension polystyrene based on Dow license, polyurethane and PVC products. The largest project, in terms of capacity, involves a new PET plant, with a capacity of 156,000 tpa, which is being built by NBG at a cost of €60 million.

Dzerzhinsk Orgsteklo

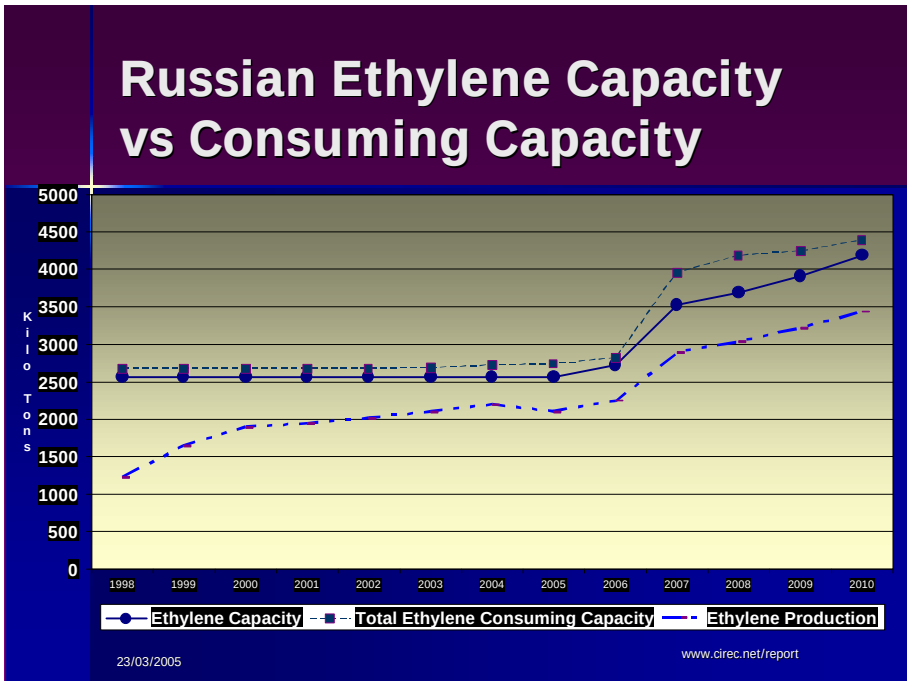
According to the Dzerzhinsk Orgsteklo (DOS) the company has resumed ÒÌ ACRYMA plastic sheets extrusion. The Âreyer sheeting line was inoperative for two months. During that period, the plant was

modified and the shop was converted into a clean room allowing it to maintain the microclimate, a condition that is requited for top-quality acrylic glass extrusion.

Product/Company News

Ethylene Capacities

Existing capacity for ethylene production in Russia stands at 2.9 million tpa, which probably at best is capable of producing no more than 2.2 (or possibly 2.3) million tons in any one year. Nizhnekamskneftekhim and Kazanorgsintez are the main producers that are planning expansions in the next few years, but there are other expansions taking place at Kstovo and Salavat. The graph below illustrates the expansion in capacity up to 2010, in line with ethylene consuming capacity. Without the increases in monomer capacity operating rates at ethylene derivative plants would be severely restricted.



Developments at Kazanorgsintez (KOS) are very important in the supply/demand equation, as KOS wants to more than double their existing capacity to feed new polyethylene units. The graph illustrates that Russian monomer capacity may fall behind derivative equivalent capacity by 2007-2008 until climbing slightly ahead by 2009-2010. Another important ethylene-polyethylene project under assessment is at Novy Urengoy which is being managed by Gazprom. This project seems to be heading in the right direction more than ten years after it was originally conceived. The investment cycle is starting to react now in Russia, but only after many years of total inactivity.

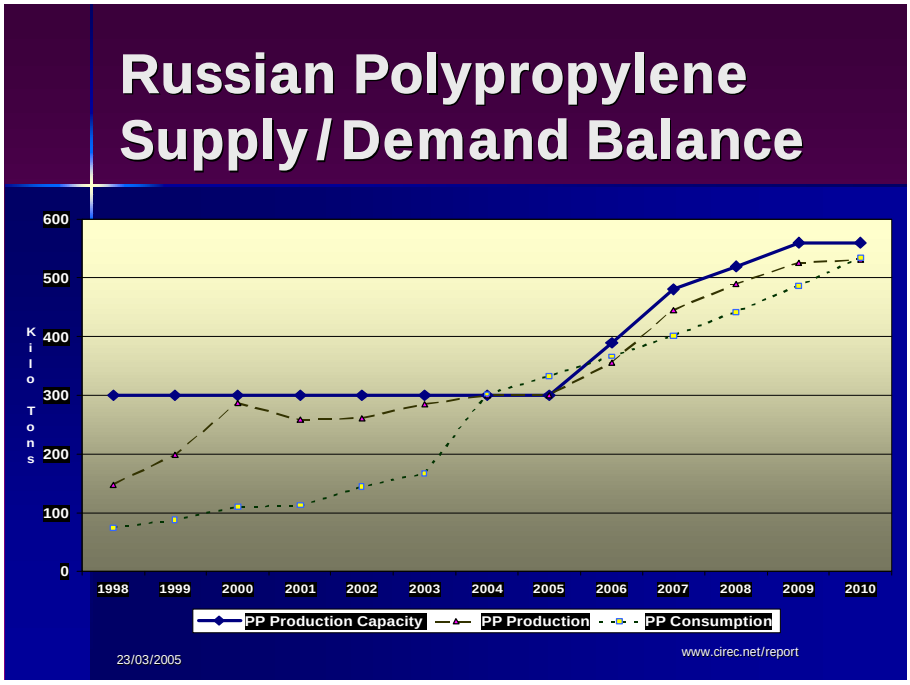
As far as new crackers are concerned, apart from Novy Urengoy which is ongoing, other possible new projects could be seen at Sayanskkhimplast or Novatek which unveiled plans last year to construct a petrochemical complex in Samara. Other potential locations include Orenburg, Astrakhan and Surgut. Sakhalin could be a possible location for the future, but such a project would have to be export-oriented and would be of no consequential value to the Russian market itself. A consortium approach to a new cracker and related derivatives would, in theory, possibly be the best approach to solving the question of future polymer demand. The involvement of LG in Tatarstan is symbolically a positive step forward, and it will help to complete the expansion of the Nizhnekamsk cracker from 450,000 tpa to 600,000 tpa. Perhaps one of the most important developments could be the floating of SIBUR shares which may eventually allow foreign involvement.

Polypropylene

A recent estimate has suggested that Russian polypropylene consumption will reach 610,000 tons by 2010, or slightly more than twice the total in 2004. This may be on the optimistic side as it would represent an

annual growth rate of 12.5% between now and the end of the decade, but even with a lower growth rate of say 10% annual consumption would still reach around 535,000 tons by 2010 (see graphic below). This seems the minimum level of growth considering that Russian consumption per capita is only around 2 kg, or about ten fold less than in developed market economies. Despite a number of new projects it looks as if capacity developments will be insufficient to meet the new demand over the next few years, thus resulting in continued import activity. Propylene is one of the main issues as some of the expansion cracker projects are ethane or LPG based, with minimal opportunity for increasing propylene supply which is already tight.

In 2004, propylene production totalled 1.33 million tons which showed an increase of 7.9% over 2003, 1.173 million tons. None of the other propylene based derivatives are likely to see important capacity increases and thus polypropylene will become a more important outlet for propylene monomer as new plants come onstream. Current polypropylene capacity in Russia stands at 300,000 tpa, and the only projects that are underway include Nizhnekamsk and Budyennovsk. That will take capacity to 540,000 tpa, but it would be quite feasible if other projects became active in the near future.



Akron

Akron at Novgorod produced 97,000 tons of methanol in 2004. Amino-formaldehyde resin and formaldehyde production amounted to 110,000 tons and 134,000 tons respectively. Capacity utilisation rate remained high in 2004, with the ammonia unit running at 109.8%. The company's total sales' revenues' grew 1.3 times compared to 2003 and reached $475 million. The sales' profits approximated $88 million, or 1.8 times above 2003, whilst the net profit grew six fold to reach $48 million. This performance improvement was related largely to upgrading and reconstruction. and also due to high investment level and professional performance of the company staff.

In 2004, Akron started a project to produce 60,000 tpa of formaldehyde solution and 90,000 tpa of amino-formaldehyde resin. The construction operations are underway subject to the contract with Haldor Topsoe (Denmark). The new technology will facilitate the use of surplus methanol.

Metafrax

Metafrax undertook large-scale investment in 2004 and symbolically the most important project was the start of the jv with Dynea called MetaDynea. Urea-formaldehyde concentrate (KFK) is now produced by Metafrax at two units, the second being introduced in June 2003. In April 2005, Metafrax plans to start construction of a third KFK unit. In addition, a contract was signed in 2004 with the Austrian company Parner for the construction of a formaldehyde plant (with a capacity 270,000 tpa). In July 2005, Metafrax will start to install equipment for the new formaldehyde plant which is planned for start-up in 2006.

An agreement was signed with Methanol Casale for the reconstruction of the reforming furnace for methanol production which will take capacity up to 1 million tpa. This is expected to be implemented this year during a modernisation shutdown at the methanol plant.

The reduction in physical volume of methanol production in 2004 by more than 10% was compensated by increases in the production of other products, including pentaerythitol; polyamide and urea-formaldehyde concentrate (the latter product which totalled 41,167 tons). Metafrax did not dominate the methanol market as much last year as it had done in 2003. Regarding the jv, which remains completely separate from the mainstream activities of Metafrax, Metadynea took the decision to expand the range of production of synthetic resins at the Gubakha site. This year the jv plans to construct a unit for the production of industrial resins.

Caustic Soda/PVC

The long running dispute between FAS (Federal Antimonopoly Service) and ETK over caustic soda sales has now been settled following the important court case in Moscow. ETK conceded that it had infringed on the law governing competition over liquid caustic soda monopolistic price fixation between 1 January 2004 and 30 September 2004.

ETK agreed to pay 20,311,163 roubles to the federal budget, which is equal to the illegal profit gained by ETK as a result of antimonopoly law infringement. For the first three years from the conclusion of the settlement, ETK is required to inform FAS in advance of any planned quarterly gross increase of liquid caustic prices, if it exceeds 10% of the previous price level. The pricing formula became effective from 1 March 2005.

Other conditions imposed on ETK are to maintain the equilibrium of caustic soda demand and supply and promote fair competition in the market. ETK must not exceed a 50% share in the domestic liquid caustic soda market after 1 March 2005 and is required to inform the FAS each quarter of ETK's current market share. According to FAS the companies that suffered from the prices monopolistically fixed in 2004 by ETK can initiate civil actions against to recover their damages. This is despite the settlement that obliged ETK to pay 20 million roubles fine to the federal budget.

Plastics

In February the Moscow Oblast took the decision to build a plant for the processing of PVC at Serpukovsk in the Moscow region. The company taking charge of the project will be Vitek Plastic and the capacity of the plant will be 45,000 tpa. The total investment will be around $30 million and start-up is expected in 2006.

ZAO Polypack (based in Zheleznogorsk of the Kursk region) has put into operation a complex to produce a 3-layer polyethylene film with four-colour print 1,800mm wide: a co-extrusion device and a printing press.

The Russian PVC paste market remains strong following investment over the last ten years in state-of-the-art manufacturing equipment. These have been for applications such as continuous floor coverings, wall coverings and under body sealants for cars. As yet, PVC paste resins of the required quality are just not available in Russia and so are imported from Germany and other West European countries.

Polyurethanes

UK company Hyperlast has sealed a new licence deal for their vehicle suspension material, Autothane with ZAO Polyplast at Chelyabinsk. Polyplast is a subsidiary of ZAO Plastic which is a main supplier of injection moulded components to Avtovaz. Whilst Polyplast specialises in steering wheel production, the initial manufacture of Autothane will be for the new Lada models 1118 and 2118 front and rear suspension.

This means that Lada will join other car companies such as BMW, Ford, Mazda, Rover, Renault, General Motors, Volvo and other leading vehicle manufacturers in using Autothane components. Autothane is a high-performance microcellular elastomer with a closed cell structure. Outperforming rubber, the material withstands repeated high load compressions and returns to its original shape.

Belarus

The Council of Ministers of the Republic of Belarus issued a statute whereby additional 16 petrochemical products have been added to the list of products imported by means of tenders upon approval by the

Economic Enhancement Commission. The products added to the list include synthetic detergents and cleansing agents; lubricants; polypropylene and PVC pipes; textured polyether filaments; synthetic fibres; non-woven materials from chemical threads; glass fibre, etc. These are products that can be supplied in a sufficient quantity to the Belarusian market by local producers such as Belshina, Mogilevkhimvolokhno, etc.

In 2005, Belarus plans to export 4.5 million tons of mineral fertilisers, with potassium fertilisers accounting for the largest share. In the internal market Belarus plans to consume around one million tons of mineral fertilisers in 2005, including 428,000 tons of nitrogen fertilisers and 420,400 tons of potassium chloride. A total of 81,000 tons of urea, 45,000 tons of ammonia and 52,600 tons potassium chloride will be used by the Gomel chemical plant.

Naftan

Kazakhstan oil companies want to take part in the reconstruction of the Naftan complex. The Asian republic considered the Mozyr refinery as a partner, but this plant upgrade has been virtually completed. The Kazakhstan side is interested in supplying about 2 million tpa of oil to Belarus at a free market price. The Novopolotsk refinery was put on stream in 1963, Naftan was created in 2002, and the current capacity is about 9 million tpa.

Naftan placed a tender in March for raw materials for 2005, including 400 tons of MEK, up to 60 tons of butyl acetate and up to 60 tons of acetone.

Mozyr

Mozyr NPZ began operating an alkylation unit at the start of 2005, a project that cost $73 million to construct. The project started in 2003 with aim of producing butane-butylene fractions for gasoline production. The modernisation programme for Mozyr also includes the construction of a benzene unit, mainly for Grodno Azot and the production of caprolactam. The project is costing around $24 million, and around 55,000 tpa of capacity will be available by the end of 2005. Having its own benzene will eliminate the need for Russian imports for which prices generally much higher. Also, there is no guarantee of supply from Russia. Another project is for paraxylene which is considered below.

Mogilevkhimvolokhno

The Belarussian government has granted Mogilevkhimvolokhno around $5.5 million for working capital. The finance will be used to buy paraxylene and MEG, a deficit of which has faced the company constantly in recent months. The combination of a lack of finance and the difficulties in securing raw materials from Russian suppliers has created operating problems for Mogilevkhimvolokhno. The finance provided by the government will allow the company to buy around 4,500 tons of paraxylene and 2,500 tons of MEG on the world market.

Thus cost of imported raw materials is increasing at a faster rate than corresponding increases in fibre and textile string export prices. As a result of the shortage of key raw materials Mogilevkhimvolokhno is running only at around 60%. To provide Mogilevkhimvolokhno with additional raw material from domestic sources at the end of 2004 the Belarussian government took the decision to construct a paraxylene plant at the Mozyr oil refinery (MNPZ). MNPZ expects to start the development of the design documentation in 2005, and to develop the working plan for the project. Naftan at Novopolotsk is the existing Belarussian supplier producing around 5,000 tons per month, and this allows Mogilevkhimvolokhno to run at around 30-40% of capacity.

Lida

Lakokraska at Lida has placed a tender for equipment supplies required for the revamping of the phthalic anhydride plant. As a result of the project, production capacity will be increased from 24,000 tpa to 48,000 tpa. The project cost is expected to be around €15 million. The revamped unit will be designed to consume of up to 30% less energy and also steam. The project is scheduled to be completed in the first quarter of 2007 and will allow exports to increase up to 30% of total production.

BOPS

Bruckner has signed a contract with Multipack, a Belarussian company, for the construction of an oriented PS film. The maximum width of a Bruckner line-produced roll will be 4.2 metres, with the line capacity of 20,000 tpa. The film thickness will be in a range of 25-800 microns. The product range will include the film of different types: vacuum packing film for foodstuffs, food twist film, label film, shrink film and packaging film for windows.

Ukraine

(Ukrainian hryvnia, Mar 22, $1 = 5.2725, €1 = 6.9650)

Ukrainian Polyethylene Market

The Ukrainian polyethylene market is estimated to have grown by 20% in 2004 over 2003, and over the past five years it has risen by a total of 250% (albeit from an extremely low market base). HDPE grew in 2004 by around 35%, whilst LDPE grew only 1%. One of the main reasons why HDPE grew so much more than LDPE was because LUKOR was heavily involved in promoting HDPE in the domestic market, and is estimated to control around 33% in total HDPE sales. Investments in extrusion equipment in 2003-2004 helped generate more consumption. Films are the major outlet accounting for 52% of total Ukrainian polyethylene consumption.

Russian producers dominated the Ukrainian polyethylene market up until recently, but have tended to lose share due to increasing competition from other suppliers and also declining availability for export. In the LDPE market Polimir at Novopolotsk is the dominant player with an estimated 36% of the market. TVK is the leader in the HDPE market, particularly for PE-80, whilst Chemopetrol sells HDPE for extrusion.

LLDPE sales are growing rapidly although the volumes remain small. Dow is estimated to have taken nearly half of LLDPE sales in Ukraine in 2004, followed by Daehlim and the Shurtan Gas Chemical Complex in Uzbekistan. The major LLDPE c0onsumer in Ukraine is Plastmodern which is the largest manufacturer of plastic products in Ukraine.

Kazakhstan

KazMunaiGaz

As one of the steps seen necessary for the creation of developing the petrochemical industry in West Kazakhstan KazMunaiGaz (KMG) has taken a 50% stakes in Atoll, which runs the Atyrau Polypropylene plant and the Aktau Plastics Plant. In addition, KMG has transferred 86.7% of shares in the Atyrau refinery to its daughter company. KMG is in talks with foreign companies regarding petrochemical projects, including Kellogg, Brown & Root, Toyo Engineering, ChemieAnlagenbau Chemnitz GmbH, Mitsui & Co, Foster Wheeler International Corporation, Shell Global Solutions, Marubeni Corporation, and ABB Lummus Global.

A rough estimate of $3.8 billion has been cited as necessary for the development of the petrochemical industry in Kazakhstan, up to 2015. Discussion areas are focused on what types of technology would be used, and the potential for developing a petrochemical sector that could compete successfully in the world market. It is possibly this latter issue that is the most important as logistically Kazakhstan is not well placed to compete against producers from other parts of the world, particularly the Middle East.

Thus, despite the vast hydrocarbon output and potential it is not obvious where plants would be located. At the moment it seems that Kazakhstan is looking at the concept of a large scale petrochemical industry as a processing outlet for oil and gas, rather than being driven principally by the market. In 2005, Kazakhstan's oil production reached 57 million tons of which 47 million tons were exported.

Petrochemical projects have been in the past, as early as the end of the 1980s. The difference between now and then was that oil and gas output was in its infant stages in Kazakhstan, whilst now Tengizchevroil produces around 6 billion cubic metres of gas per annum. Companies such as Samsung and LG have stated their readiness to provide credit lines for petrochemical projects.

Aktau Plastics Plant

In April and May this year the Aktau Plastics Plant will revive polystyrene production which has been idle since August 2003. In 2005, the plant expects to produce between 30-50,000 tons of polystyrene which for the most part be exported to Central and West Europe.

Pavlodar

The Central Asian Fuel-Energy Company has become the new owner of Kaustik at Pavlodar. Discussions are currently underway between ChemieAnlagenbau Chemnitz GmbH and SembCorp SimonCarves for new

equipment for the production of chlorine and caustic soda. In December 2004, the first stage of the demercurisation of the Pavlodar chlorine plant was started and has made good progress since then.

FORTHCOMING EVENTS

- **11-12 May 2005, London`**
  CMAI's 2005 Petrochemical Focus Conference & Workshop

- **30-31 May 2005, Amsterdam**
- **4th Annual Conference "Chemical & Petrochemical Markets of CEE & SEE in 2005, Marcus Evans**

- **31 May - 1 June, Budapest**
  New Europe, Russia & CIS EDC-VCM-PVC Markets Conference, CMT

A full list of events for 2005 can be seen at www.cirec.net

Contents Issue No 172