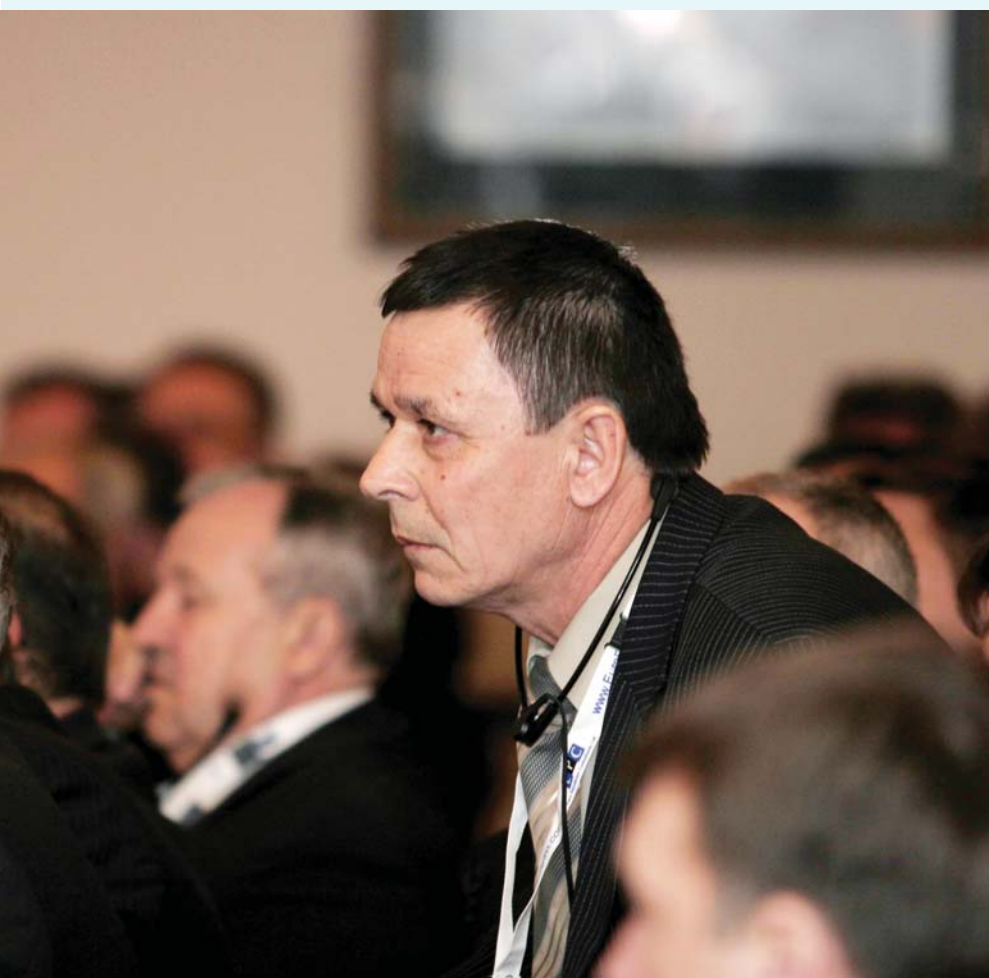


Profound sense of going down the barrel



Russia's growing refinery runs (in 2006 processing volumes grew to 4.38mn b/d, 6% up y.o.y.) exacerbate the challenge of refining depth at the domestic refineries. In 2006 Russia's average refining depth stood at 71.2%, compared to over 90% in the EU and USA. The reason lies in the lack of advanced treatment facilities for processing heavy bottoms of atmospheric and vacuum distillation into gasoil, naphtha, kerosene, cutting down production of fuel oil, bitumen and tar. This was the key note of the Bottom of the Barrel conference hosted by EPC in Grand Marriott Hotel on 18-19 April.

The refiners from Russia, Ukraine and Kazakhstan were offered wide range of technology solutions, some of which were highly impressive. Bill Howe, head of Quadrise Fuels International plc., outlined a technology transforming tar, heavy bottoms and output of visbreaking units into a slurry similar by its properties to heavy fuel oil. The flow chart presented by the company cuts out project investment outlays — Quadrise Fuels would shoulder project cost and marketing risks, buying off a refinery processing waste and selling the product to power generators. The final product is also fit for bunkering, said Bill Howe — chemical additives to the substance ensure safe storage for over three months.

Another ingenious solution is offered by Genoil, Canada. This technology could be applied either in upstream or downstream projects — the proprietary hydroconversion process targets either on-field crude enhancing or enhancing process waste at the refinery. Russia's Lukoil is already eyeing up the technology for on-field application at Yaregskoe field (Komi Autonomy) — the company was impressed by the results of the test processing of heavy Yaregskoe-produced crude at Genoil unit. The technology also impressed TNK-BP (the company is in the process of setting up a workgroup for developing fields with heavy oil). Delegations of Tatarstan companies, which already produce natural bitumen, literally flocked to Genoil test unit and had a num-

ber of meetings with Genoil management.

The refiners followed the trend — China's Hebei Jongji refinery is preparing its heavy stills for test run at Genoil unit. The results would be followed by design work for Genoil hydroconversion unit project slated for launch in 2010. Top management of Afipsky refinery (a part of United Oil Group) considers hydroconversion technology for its refinery modernisation programme which aims at stopping tar production and cutting down fuel oil production.

Genoil is a technology and design company. The patented hydroconversion technology is a hydro-process with lower pressure and temperature than usually. Mild conditions of the process mean much lower project investment and maintenance costs.