NEWS
FEBRUARY 03, 2020

A NEW NANOCATALYST INCREASES VACUUM RESIDUE HYDROCRACKER PERFORMANCE AT LUKOIL NEFTOHIM BURGAS JSC

In February 2020 LUKOIL Neftohim Burgas JSC commissioned an innovative technology using a new type of nanocatalyst – with higher selectivity and performance. Nano-technologies are considered a key area of 21st century science. H-CAT is an advanced development licensed by the US company Headwaters Technology Innovation (HTI), which works in an strategic alliance with the technology leader Axens – the licensor of the H-Oil hydrocracking unit which is in the heart of the Heavy Residue Processing Complex at the LUKOIL refinery in Burgas. The complex is the largest catalytic hydrocracking unit in Europe with a throughput capacity of 2.5 mln. tons of oil feedstock per annum. It is the fourth unit in Europe and the sixth one in the world to use the innovative H-CAT nanocatalytic system.

The highly professional team of LUKOIL Neftohim Burgas has mastered the complex H-Oil technology in record time and achieved enviable results winning the recognition and respect of their colleagues in the area of oil refining. The research done by the refinery's process engineers, the careful selection of the oil feedstock and the operation mode optimization made it possible to achieve a remarkably high vacuum residue conversion rate of 73%. The introduction of the H-CAT technology is one more step to further enhancement of process performance, increasing the conversion rate by 6%. And this is not the only advantage the refinery will get as a result of this forward-looking investment. The nanocatalyst will improve the unit's energy efficiency and ecological indicators, as well as increase the run-between-turnarounds period. By introducing this technology LUKOIL Neftohim Burgas JSC has demonstrated once again its capacity to become a technology leader in oil refining.