

Membrane elements and ion exchange resins from LANXESS prove their worth in water treatment in Serbian refinery

Further industrial-scale deployment of Lewabrane in Europe

Cologne – The reverse osmosis separation elements produced by specialty chemicals company LANXESS have again proven their worth in practice: some 400 Lewabrane elements have been reliably treating brackish water in a new industrial-scale plant in Serbia for one year now. They are being used to treat water from the Danube for a refinery in Pančevo operated by Naftna Industrija Srbije (NIS).

The river water used in the NIS refinery at Pančevo is sourced around 15 km away from Belgrade at the tributary of the River Timiș into the Danube. It is pretreated using flocculation and ultrafiltration before passing through three reverse osmosis trains, each equipped with 132 Lewabrane RO B400 LE elements. Each train is capable of treating 100 cubic meters per hour. The permeate is subsequently desalinated using a multiple-stage process with ion exchange resins from LANXESS. Just under 30 cubic meters of Lewatit exchange resin of the types Lewatit MonoPlus S108, Lewatit MonoPlus M500 and Lewatit IN42 are used for this purpose.

The water treatment plant was built by WBG WasserBauGesellschaft International mbH from Kulmbach, Germany. The plant was laid out using LewaPlus software from LANXESS. “We derived the required plant parameters based on a water analysis, using this to determine the pump performance and the size of the reverse osmosis and ion exchange plant,” explains Jens Lipnizki, Head of Technical Marketing Membranes in the Liquid Purification Technologies business unit at LANXESS.

LANXESS AG

Contact:
Ilona Kawan
Corporate Communications
Spokesperson Trade & Technical
Press
50569 Cologne
Germany

Phone: +49 221 8885-1684
Ilona.kawan@lanxess.com

Page 1 of 3

The elements used are a low-energy type that operate at pressures between 20 and 40 percent less than the company's standard elements, which reduces the pumps' energy consumption to the same degree. The low-energy (LE) membranes are particularly beneficial wherever high flow rates and a correspondingly high productivity rate are required, while still retaining a good balance between energy consumption and water quality. The main area of application lies in the desalination of brackish water for the industrial and municipal sectors. The average salt rejection capacity is around 99.5 percent – based on an operating pressure of 10.3 bars.

For detailed information on LANXESS' complete product range for water treatment with reverse osmosis and ion exchange, go to www.lpt.lanxess.com.

The Liquid Purification Technologies business unit is part of the LANXESS Performance Chemicals segment, which generated sales of EUR 2,193 million in 2014.

Founded in 1965, the oil company NIS is based in Serbia's second-largest city, Novi Sad. The mainstays of the operation are exploring for gas and oil in Serbia along with the manufacture, import, processing, transportation and marketing of hydrocarbons.

LANXESS is a leading specialty chemicals company with sales of EUR 8.0 billion in 2014 and about 16,300 employees in 29 countries. The company is currently represented at 52 production sites worldwide. The core business of LANXESS is the development, manufacturing and marketing of plastics, rubber, intermediates and specialty chemicals. LANXESS is a member of the leading sustainability indices Dow Jones Sustainability Index (DJSI World) and FTSE4Good.

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Forward-Looking Statements.

This news release may contain forward-looking statements based on current assumptions and forecasts made by LANXESS AG management. Various known and unknown risks, uncertainties and other factors could lead to material differences between

LANXESS AG

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Ilona Kawan
Corporate Communications
Spokesperson Trade & Technical
Press
50569 Cologne
Germany

Phone: +49 221 8885-1684
Ilona.kawan@lanxess.com

Page 2 of 3

News Release

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Information for editors:

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You can find further information concerning LANXESS chemistry in our WebMagazine at <http://webmagazine.lanxess.com>.

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Page 3 of 3