

Innovative and sustainable construction solutions are being tackled by many in the highways industry, including bitumen producers. Patrick Smith reports

azprom Neft is one of the largest and fastest growing oil and gas producers in Russia, selling its products to more than 18 Russian regions and exporting them to about 50 countries all over the world.

The key areas of the Russian oil company's operations included production and sale of crude oil and gas, as well as oil refining and marketing of petroleum products.

And the continuous increase in demand for bituminous products from the Russian market has pushed Gazprom Neft to invest further resources on this segment of activity.

Following the above strategy, a modern factory for production of polymer modified bitumen (PMB) and bitumen emulsion has recently been installed in Russia's largest oil refining complex in Omsk.

Italian company MASSENZA, which has played a major role in bitumen handling equipment with more than 60 years experience in

The big turnkey project started more than two years ago, and several meetings and visits were necessary to classify and define the demanding specifications of the oil company. Finally, the equipment was delivered to the Omsk refinery using a total of 11 trucks.

After installation and the first successful tests in October, 2010, an official presentation at the factory has been held in front of Gazprom Neft's top management, refinery technicians, national journalists and television.

Among speakers at the event were Anatoliy Cherner (Deputy General Director for Logistics, Processing and Sales); Vladimir Kandrashin (Head of the Department of Bituminous Materials) and Diego Massenza (General Manager of MASSENZA).

The innovative factory has been designed to be fully automatically operated by three remote control panels, each of them in charge of different sectors (storage and heating system, emulsion plant and the PMB plant).

Each control panel is equipped with PLC and touch screen terminals and an interconnecting CPU, ensuring the data exchange among the panels. This particular configuration allows the operator to run the entire factory from a separate room, keeping each piece of equipment under control.

Simply setting on the control panels the total amount of emulsion and/or PMB to be produced and selecting the emulsion and/or PMB recipe, the operator can start the automatic production cycle.

A list of different recipes, datasheet of chemicals, chronological production records and other features are available on the control panels to make the different operations easier.

The bitumen emulsion and PMB production plants are both designed on batch technology, being the most versatile and flexible solution in terms of additives issue, polymer choice and production control, says MASSENZA.

Apart from emulsion and PMB production plants, the factory also includes all the other additional equipment necessary to make it a complete and independent unit including horizontal storage tanks for neat bitumen and PMB, vertical silos for emulsion, storage tanks for all chemicals, thermal oil heater, loading and unloading pumps and piping and valves.



After installation and successful tests of the new MASSENZA equipment an official presentation was held in front of Gazprom Neft's top management and refinery technicians



BITUMEN TECHNOLOGY

REPRODUCED BY

MASSENZA says that the equipment's high degree of reliability is ensured by its extensive know-how and experience, and on top of this an extra commitment has been applied for this specific project to reach the high safety levels required by Gazprom Neft. As well as standard safety and security devices, additional items have been installed to monitor all raw materials and final product parameters such as temperature, level, pressure and flow.

Final testing and commissioning of this stateof-the-art factory is planned for the second quarter of 2011, enabling Gazprom Neft to supply final products on a regular basis.