

Bulletins

BioFlowsheet and Solutions Program

Siemens has received a EUR 5.5 million award to provide a wastewater treatment system and associated piping, instrumentation and engineering to the Inegol Industrial Zone in Inegol, Turkey. The system will increase the capacity of Inegol's wastewater treatment plant, while lowering costs. Siemens Water Technologies will provide a BioFlowsheet + Solution, consisting of a VertiCel aeration system, Flocculating Energy Dissipating Well Arrangement clarifiers with the Tow-Bro Unitube sludge removal header and the Cannibal solids reduction system. Siemens will also provide the necessary piping and instrumentation for the system in addition to all the electrical and automation systems for the entire plant. The system is scheduled to be commissioned in mid-2009.

Czajka WTP expansion

Veolia Water, via its subsidiary Veolia Water Solutions & Technologies, has won a contract in a consortium including Warbud, the Polish civil engineering company, and WTE, the German water company, to upgrade and extend the Czajka wastewater treatment plant (WTP) in Warsaw, Poland. The contract is worth an estimated EUR 500 million for the consortium, of which EUR 148 million is for Veolia Water. The new plant will have the capacity to treat 435,000cum of wastewater per day, and up to 515,000cum per day in peak periods. The upgrading and extension of the plant will be carried out in successive phases in order to enable the plant to continue operating throughout the period of the works, scheduled for completion at the end of 2010. After completion, Czajka will be the biggest wastewater treatment plant in Poland.

WTP equipment order

Siemens Water Technologies has received a EUR 1.95 million award to supply equipment for the new 189-MLD Aurora Reservoir Water Treatment Plant (WTP), which is part of the Prairie Waters Project for the City of Aurora, Colorado, USA. Water from the South Platte River will be piped 54km to the water purification plant, where it will undergo softening, filtration, ultraviolet light oxidation and activated carbon adsorption before being distributed. The softening equipment supplied by Siemens includes four 47MLD Contrafast high rate sludge-thickening clarifiers for installation in concrete basins. Siemens will also supply 70 ESSD stainless steel washtroughs for placement in media filters and activated carbon adsorption cells. The project will provide a sustainable supply of high quality water to meet the City's demands into the 2020's. Both of the City's existing water treatment plants received the Phase 3, Director Award from the American Water Works Association Partnership for Safe Water, and the new plant is designed to continue to meet this commitment to water quality.

MZT Pumpi brought Mittal Steel – Zenica back into operation

Best external contractor award

MZT Pumpi a.d. has successfully refurbished the iron and steel factory at Mittal Steel – Zenica, Bosnia and Herzegovina. The project involved repairing the factory's water system and the lubrication system.

Through years of usage, the water system's pumping equipment and steel construction at the iron and steel factory were seriously damaged. In order to repair this damage, three new single-stage centrifugal pumps with electrical motor, and two new single-stage spiral pumps were installed and put into operation in pump station PS-2. Additional maintenance work was needed to repair the water treatment equipment fully. Of those activities, MZT Pumpi was responsible for overhauling the pumps and sealing armature; dismantling of the old cooling tower; repairing the electro equipment and installing apparatus to measure the water level in suction basin PS-8, as well as repair the pumps, shutter armature and drive reducers in station PS-2.

In order to bring the central lubricating system back into

operation, the system's tanks, pumps, main lines, auxiliary lines, junction valves, pressure limiters and electro-hydraulic switches were also overhauled, cleaned and tested for full functionality. MZT Pumpi has ensured that all the factory's equipment now meets its technical specifications.

"We repaired or replaced more than one hundred pumps and valves," comments Zlatko Cvetkovski, head of R&D department at MZT Pumpi. "We repaired pipelines with diameters from 15mm up to 1m, sedimentation tanks and measuring and control equipment. It was our staff's experience, knowledge and dedication that enabled us to realize

this project with such great success. The plant is now running smoothly and uninterrupted."

For its work on the iron and steel factory, ArcelorMittal presented MZT Pumpi with an award for the best external contractor in Health and Safety 2008.

MZT Pumpi is a manufacturer specialized in producing pumps for water, oil and oil derivatives. Established in 1945 as a small manufacturer of fire-fighting equipment, the company has continued to broaden its product range making it one of the largest pump manufacturers in south-eastern Europe.



When the going gets tough, the tough get going

The task currently facing Van Heck in the Brazilian port of Sepetiba is certainly not an easy one, but it is a challenge for them. The task was to go off into the swamps of Sepetiba and to pump off the excess of water, by using their high capacity pumps. The boggy soil and the fact that the area frequently lacks any efficient infrastructure, can turn this mission in South America a logistical nightmare both for man and machine.

This swampy territory with its sweltering combination of heat and humidity is also full of poisonous snakes and other exotic species.

Van Heck's pump equipment was sometimes delayed at customs longer than the time it took to ship it. Working at this location, approximately 30 kilometres south of Rio de Janeiro, is not exactly a walk in the park. However, the setbacks they have experienced on the way have only encouraged Van Heck even more, to deliver a top performance. At the beginning of the year the Frisian experts were called in by Dredging International and Boskalis (DEME Brazil Joint Venture). This company has the responsibility of dredging Sepetiba, one of the six most important seaports in the state of Rio de Janeiro. Dredging is also being carried out to create a turning bay for large shipping vessels.

Making way for Thyssen/Krupp

The purpose of these opera-

tions is to clear the way for the expansion of the port with a huge steel factory including a separate ore terminal, to be built in Sepetiba for German steel company Thyssen/Krupp. Preparations are in full swing and Van

Heck is taking responsibility for the processing and drainage of spill water. Over the past few months, all of the equipment has been set up and Van Heck's own engineers have already been to the site a couple of times in order to check on the situation and train the local workers, who will soon be able to help with maintenance. The team from Noord-wolde encountered problems right from the start. Jeroen van Heck: "How do we get there with our daily supply of



Diesel? You can't even get there with a tracked excavator. There aren't any access roads, so our pumps units sank into the soft ground. This road has now been built. Other hurdles were overcome too. The pumping units had already proved themselves in extreme conditions. All of the units are resistant to high temperatures of 50 degrees Celsius. Under tropical conditions such as these, one needs an enormous cooling capacity." The expansion of the Sepetiba port is expected to take at least another year. The pumping of spill water is a continuous process, so the men and machines of Van Heck will remain working in South America for the time being.



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FPWTS for Su Tu Vang CPP

J. Ray McDermott Asia Pacific Pte Ltd (JRMAP) has selected Siemens Water Technologies to provide filtration and produced water treatment systems (FPWTS) to the new Su Tu Vang CPP (Central Processing Platform) to be operated by the Cuu Long Joint Operating Co., offshore Vietnam. The order amount is USD 4.6 million. The filtration system will include fine and coarse filters that will be included in a seawater injection system for the removal of particulates. The produced water treatment system will include a skim vessel, hydrocyclones and dissolved gas flotation equipment to treat produced water to meet discharge limitations. Project completion is scheduled for the fourth quarter of 2008. The fine and coarse filters supplied for the seawater injection system include backwashable coarse strainers for large particle removal, followed by dual-media finefilters to achieve particle removal to 2 microns. The produced water treatment system includes a vertical skim vessel for bulk oil removal, followed by hydrocyclones and proprietary flotation equipment for the removal of oil in water to below 35ppm. The integrated CPP will be installed in 170ft of water. JRMAP will provide engineering, procurement, construction, installation, hook-up and commissioning services for the platform. Crude oil production from the Su Tu Vang oilfield is expected to start in the fourth quarter of 2008 and will steadily move up to its target of 100,000bpd.

ABB powers pumping station

Six 1250kW ABB industrial drives will be powering the UK's largest pumping station, protecting 700km² of land in the Cambridgeshire Fens from flooding. The new pumping station at Wickenhall St Germans will protect more than 25,000 properties, businesses conservation sites and extensive areas of high-grade agricultural land in an area called the Middle Level. The current station comprises four pump sets delivering a total capacity of 70m³/s. Each of the six new pump sets will be able to raise 16.66m³/s to a static head of 4.25m, giving a total capacity of 100m³/s. The ABB industrial drives will adjust the pumps to suit a wide range of flows. Each pump will operate to match the actual flow demand and can respond immediately whenever circumstances change. The new pumps will also provide quicker response at start-up as they do not need priming, as is the case with the existing units. The station will pump water from the Middle Level into the tidal River Great Ouse. The ABB drives are expected to be installed by mid-2009 and the site will be operational by the March 2010. The GBP 38 million pumping station will be owned and operated by the Middle Level Commissioners and is being built with the help of a 45% grant from the Department for Environment, Food and Rural Affairs.