France

Increased environmental protection improves quality of life for citizens

Area	547,030 km²
Population	60,656,178
Most populated city	Paris, approx. 12 million inhabitants

Key economic data

GDP (purchasing power parity)	$ 1.8 trillion
GDP (official exchange rate)	$ 2.1 trillion
GDP real growth rate	1.5%
GDP per capita (purchasing power parity)	$ 29,900
Inflation rate (consumer prices)	1.9%
Unemployment rate	10.0%

Source: CIA World Factbook 2005

The Eiffel Tower, Paris

Claude Lopez
Project Director for Degrémont, France

“Andritz has worked with us every step of the way. I am impressed with the level of support, the technology, and the knowledge of the people.“

The new wastewater treatment plant in Valenton near Paris, France includes Andritz dewatering, drying and pelletizing equipment. The drum dryer system turns wastewater sludge into granulate and pellets of over 90% dryness.

600,000 CUBIC METERS OF WASTEWATER PER DAY

Interview with Claude Lopez

Project Director for Degrémont, France

SIAPP (Syndicat Interdépartemental pour l'Assainissement de l'Agglomération Parisienne), a major French collective responsible for wastewater management, recently expanded its Valenton plant (20 km south of Paris) to process 600,000 m³ per day of wastewater to high environmental standards before returning it to the Seine. Degrémont, the water treatment plant specialist, was awarded the contract for designing and building the new sludge treatment facility. Andritz supplied the dewatering, drying and pelletizing equipment for this massive project. We spoke with Claude Lopez, Project Director for Degrémont, about this project and Andritz's contribution.

Experience

I have worked for Degrémont as Director of this project for the past three years, but I have over 20 years of experience in project management. My degree is in electro-mechanical engineering from Montpellier University. Before joining Degrémont, I was a sludge specialist for another company, managing some very large projects. I also worked for Elf Aquitaine, the French oil and gas company.

The Valenton project

In simple terms, the project is to build and operate a wastewater plant and a sludge handling plant which takes 600,000 m³ of wastewater per day, removes the pollutants from the water, and returns the clean water to the River Seine. In addition, we are doing this in an incredibly fuel-efficient way. Plus, we are adding value to some of the sludge "waste" so that it can be used for agricultural purposes.

French wastewater authority SIAPP awarded us the contract for this project in December 2002. Degrémont is responsible for the overall plant, but Andritz is a specialist in the sludge drying area – which is a very critical technology – and we look to them for this expertise. We selected Andritz as a supplier/partner beforehand and they did a very good job of helping us prepare the process design and quotation.

Civil construction began in June 2003. Construction of the Andritz portion began in January 2004. The first testing of the drying system on sludge was completed in November 2005. Our commitment is to have the first drying line operational by the end of January, the second line in February, and the final line by mid-March 2006. When all three lines are running, the capacity is 200 tons of dried sludge per day.

Energy-efficiency

This plant will be the most energy-efficient of its kind in Europe – and perhaps the world – when it is fully operational. Only 27% of the total energy required will be purchased (natural gas). The remainder comes from using biogas from the existing digesting process and from recovering/reusing the heat generated by the pyrolizing plant. This level of efficiency is really quite remarkable.

Andritz technology

Andritz is a well-known and well-respected supplier in France, and around the world. On this project, they are contributing three important technologies: sludge dewatering through five large decanter centrifuges, sludge drying through three triple-pass drum drying lines, and a pelletizing system to turn the very small particles of dried sludge (dust) into the proper size granules.

The Andritz technology dewaters the sludge (from 5% to 27% dry solid content) and then dries it. By contract, we must process the sludge to a specific dryness range (minimum 90% dry solid content) and a specific granule size (2-5 mm in diameter). These are relatively tight specs and we need the Andritz technology to help us adhere to our contractual commitments.

Andritz support

This is the first time I have worked with Andritz on a project. They have met all their schedule commitments. For example, the dryer drums are so large that they had to be delivered first so that the building could be constructed around them. Imagine what this would have done to our overall schedule if Degrémont could not depend on Andritz to deliver on time. Andritz has worked with us on this project every step of the way – from design to manufacturing to construction to start-up. I have been impressed by the level of support and the knowledge of the people.

Adding value

Andritz's drying technology opens the door to add value to the sludge to avoid sending it all to landfill. For example, Valenton is the first plant we have ever built where we will produce agricultural fertilizer from the sludge on-site. We will begin by producing 5,000 tons of fertilizer and have the ability to expand in the future. The dried sludge can also be used as an energy source (for biomass boilers and cement plants).

Future plans

After this project, I return to my home in the south of France to be a regional director of projects for Degrémont. I'm looking forward to re-joining my family after three years of commuting by high-speed train from my home to Paris. And, I am looking forward to working with Andritz on future projects.