



SUSTAINABLE WASTE WATER MANAGEMENT PROJECT LEMPRIERE WOOL BULGARIA

Light industry

Operation and optimization of Wastewater treatment plant

| The client

Australia's Lempriere Wool is one of the largest global wool companies. Its core business is processing raw wool from around the world to make it suitable for making yarn and thread. The establishment of Bulgarian operation has expanded the Lempriere's footprint in Europe by servicing the fashion market.

| The challenge

The wool wastewater contains a large amount of high-concentration suspended solids and soluble organic pollutants that are difficult to degrade, mainly containing impurities such as sediment, lanolin, sheep dung, detergent, and sheep's own secretions. Among them, lanolin is mostly emulsified and exists in the form of O/W (oil-in-water), which is the main component of BOD (biological oxygen demand) and COD (chemical oxygen demand) in wastewater. Wool wastewater has the characteristics of high organic matter concentration and high suspended matter concentration, which make the wastewater from that kind of production quite demanding.

Lempriere Wool Bulgaria needed a responsible and experienced partner for operation and optimization of the existing wastewater treatment plant and identified Veolia as such.

| Veolia's solution

As a basis for high-quality operation of the wastewater treatment plant (WWTP), Veolia is providing continuous specialized training for the treatment plant staff, as well as developed and implemented a detailed daily monitoring of key indicators of the flows in the plant, which leads to optimal consumption of chemicals, with maximum efficiency of the treatment.



Sliven, Bulgaria



Contract Facts:

Duration: 3 years

Type: Operation of WWTP

74% better
results of the
outlet

900 MWh/y
est. reduction
of used energy

115 000 €
of est. energy savings/year



Based on performed by Veolia's technologists feasibility study, the team executed a number of industrial tests and modelled a new chemical treatment.

As a result of this and thanks to a number of operational improvements, the pollution norms at the exit of the plant decreased significantly, such as (COD 57%; TSS (total suspended solids) 79%, Sulphates 83 % fats 78 %).

Veolia developed a full SCADA (supervisory control and data acquisition) design project as well as a highly sustainable energy efficiency project, with a calculated reduction of used energy by 900MWh/y and a major contribution to process optimization. Furthermore, Veolia regularly prepares reports on the condition of the facility, and gives Lempriere suggestions for optimization and modernization.

| The benefits

The performance of Lempriere's Wastewater treatment plant was significantly improved thanks to the unique know-how and extensive expertise of Veolia. Moreover, with its continuous focus on optimization Veolia helped Lempriere to improve its environmental footprint, and sustainable operation at a time when challenges, both local and global, require innovative approaches, decisions and alliances.



Lempriere supplies its partners with lanolin (residual material from wool washing) which is highly valued material in the cosmetics and pharmaceutical industries.



By processing in Bulgaria the company is able to reduce logistic time and costs for our clients while delivering premium quality products.

Eric Durand, managing director of Lempriere Wool Bulgaria



VEOLIA'S PURPOSE: committing to a multifaceted performance



SOCIAL

Contributes to the sustainable development of the city, community and economic growth



COMMERCIAL

We help our clients to achieve constant growth in their core business, relying on our expertise and experience



ENVIRONMENTAL

A business dedicated to excellence of ecological transformation through responsible production and consumption



HUMAN RESOURCES

Veolia promotes the integrity and equality. Builds relationships to achieve goals