

Remodelação e Ampliação da ETAR Faro Noroeste Loulé e Faro

Faro Northwest WWTP – Remodeling and Enlargement Loulé - Faro, Portugal

The new plant was designed for a treatment capacity of 44,530 inhabitants equivalent and for new quality goals for the final effluent, particularly with regard to microbiological parameters.

The area served covers part of the parishes of Almancil and São Clemente, of the municipality of Loulé and part of the parishes of Santa Bárbara de Nexe, Conceição and São Pedro, and the whole of the parish of Montenegro in the municipality of Faro.

Presentation of the Infrastructure

The recommended treatment scheme involves two lines and, in hydraulic and procedural terms, it was dimensioned for a design horizon year of 2033. It is based on a system of biological treatment using activated sludge, involving long aeration in two biological reactors configured as two oxidation ditches with surface aerators.

The solution adopted comprises a three-stage treatment scheme:

1 – Liquid Stage

- Intake system: equipped with rotating-drum screens to remove bigger solids / • Grit/grease removal, to remove sand, oils and fats / • Reception of sludge from septic tanks / • Contact tanks and receivers (selectors) and biological reactors of the oxidation ditch type, where the biological treatment takes place / • Secondary decanters to remove the biomass from the effluent, a part being recycled to the process / • Microfiltration in rotating-drum micro-atomisers / • Disinfection of the final effluent from the Plant by ultraviolet radiation / • Additional disinfection of part of the effluent with a view to its use as service water within the area of the Wastewater Treatment Plant.

The receiving environment for the final effluent from the Faro Northwest Wastewater Treatment Plant is the Ramalhete Creek of the Formosa Ria.

2 – Solid Stage

- Conditioning with polyelectrolyte / • Thickening (in a thickening drum and mechanical dehydration (in centrifuge) of the excess biological sludge / • Elevation of the dehydrated sludge and its storage in silos.

3 – Odour Control

Extraction and treatment, at a chemical odour-control unity, of the foul air from the sludge entering and treatment stages.

This treatment design is considered the most advantageous in both economic and operational terms, taking into account the size of the plant and the regulations governing the discharge of residual waters from the Plant fixed by the Algarve Hydrographic Region Administration (ARH):

CBO5 - 25 mg/l;

COD - 125 mg/l;

TSS - 35 mg/l;

and Fecal Coliforms < 300 MPN/ 100 mL.



Resumo da Obra

Work Summary

Cliente
Tipo de contrato
Data de construção
Custo
Observações

Águas do Algarve, SA
Concepção-construção
2008-2010
EUR 9.700.000,00
Job in Consortium

Customer
Type of Contract
Construction date
Cost
Notes

