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Termomeccanica Ecologia

Waste water treatment plant
Gabal el Asfar (Cairo, Egitto)

The waste water treatment plant of Gabal el Asfar is the final part of the project "GREATER CAIRO WASTEWATER PROJECT", to serve the urban area of Cairo that extends from Maadi, zone at the south of Cairo, to Abu Zaabal in the northern part, together with the zone that reaches the pyramids and Naast City to the east.

Commencement date: July 1990
Delivery date: December 2005



Water treatment
Treatment of Civil and Industrial Waste Water

Waste water treatment plant Gabal el Asfar (Cairo, Egitto)



• Name of the plant:

The Greater Cairo Wastewater Project Gabal el Asfar site

• Place of installation:

Cairo, Egitto

• Client:

Ministry of Housing, Utilities and New Communities
Organisation for the excation of Greater Cairo
Wastewater Project (CAPWO)

• Plant description:

The plant is divided into two principle parts, corresponding to the contract portions denominated I6-1 and I6-2

- I6.2 lines of water treatment
- I6.1 lines of sludge treatment, production of biological gas and production of electrical energy

The main sections are the following:

Water Line

- screening, initial raising and sand removal
- primary sedimentation
- biological treatment and re-circulation of sludge
- final sedimentation and chlorination
- intermediate raising stations and re-circulation of sludge
- buildings for services

Sludge Line

- thickening and dewatering
- sludge digestion
- production of gas stock
- production of electrical energy with generators fed with biogas

• Specific data:

population served: 5 million inhabitants equivalent (P.E)
average hydraulic flow: 1,000,000 m³/day
maximum hydraulic flow: 1,700,000 m³/day
BOD charge at input: 335,000 kg /day
suspended solids: 600,000 kg /day
BOD charge at output : < 30 mg / l
electricity produced in the plant: 18.5 megawatt

Scope of the contract:

- Executive design and turnkey realisation of the plant in Consortium with Condotte (Italy)
– NCCD (Egypt) – ARABCO (Egypt)



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