



DESIGN AND CONSTRUCTION OF THE WASTE WATER TREATMENT PLANT IN KOPRIVNICA



In October of 2005 Astra International Inc. signed a contract on a turn-key basis (FIDIC conditions for EPC contracts) for design, equipment delivery, installation, commissioning and start-up and guarantee maintenance of the mechanical-biological waste water treatment plant for the city of Koprivnica. The capacity of the plant is 100,000 equivalents and includes complete sludge treatment and removal system. The system treats a combination of the municipal and industrial waste water.

The Client was the city municipal services Komunalac d.o.o, Koprivnica, and the project was financed by the city of Koprivnica and the company Hrvatske vode.

In the realization of the contract, Astra included the following main subcontractors:

- Astra International Inženjering d.o.o., Zagreb - project management
- Peters engineering, Austria and Biogest, Germany – technological and mechanical part
- Tehnika d.d., Zagreb – construction works

The plant units:

- Refurbishing the old mechanical equipment (as a stand-by in case of emergency)
- Installation of a new mechanical plant
- Installation of a new biological plant (SBR)

- Installation of a sludge stabilization and treatment plant

For the first time in Croatia problem of sludge is solved by installation of the plant for stabilization and dehydration of sludge and with the applied new Mid-Mix technology. Solidificat is made out of the emerged sludge. It can be disposed to any waste landfill or used as filler in the construction industry.

Design and other activities necessary for obtaining location, building and other permits ended in June 2006 when the construction work began. The majority of construction and installation work was completed by the end of 2006.

In the first quarter of 2007 the system was put on a trial run. The achieved results of the treatment as well as operational costs showed much better than it was guaranteed by the contract. Warranty period successfully ended in March 2009.



Control unit of blowers
and other motor drives



Chemical dosing and laboratory



Mechanical treatment plant - before installation