

METALURGICAL PLANT "KREMIKOVTSI"-TAILINGS POND

Project Introduction

The project is part of the pilot projects package of Ecozone "Sofia-East". The proposed project is developed by specialists from the Metallurgical Plant "Kremikovtsi" Co. and presented in the Ministry of Environment in 1996. Kremikovtsi Co. has prepared and presented a plan which served as a request for finance to the National Trust Ecofund (NTEF) in October 1996. Title of the project - WATER PURIFIER FOR ALL WASTE WATERS COMMING FROM THE COKECHEMICAL FACTORY - KREMIKOVTSI LTD



Project Objectives;

The realization of the project aims to achieve environmental result and reduction of the health risk for the employees and the population. This will lead also to economical consequences:

- saving 525 000-700 000 m³/water per year after its purification and its use for a circular water reuse;
- elimination of the forced monthly tax sanction for exceeding Maximum Permissible Concentration according to indexes: ammonium nitrogen, cyanides and phenols in the waste waters of the slime depot. Till now they flow into Lesnovska river(II category water receiver).
- the highest values of the water pollutants like phenols,oils,cuanides, sulfides, sulfocianides will correspond to Euronorms;
- possible reuse of resources from the slime depot;
- stopping the dust pollution of the area round the depot;
- recultivation of the damaged soils;

General Technical Description;

The slime depot is 1 375 000 m²; average depth - 12m; volume 16 500 000 m³ ; Waste waters are excerpted in the process of cooling, condensation and manufacturing chemical products/coke gas, coal tar, etc./ from the coking. The waste waters contain substances as:

	[mg/lit]
phenols	600-1000
ammonia/general/	800-1200
sulfides	80-100
sulfocyanides	400-600
free cyanides	20-40
tar and oils	800-1200

The process of production is constant. Since 1963 when the Cokechemical factory has been put in operation , nearly 50% of the waste waters have been used for slaking the coke. The rest of the water has been slit up in the slime depot -Gorni Bogrov.The technology brings extremely serious environmental problems including air pollution, pollution of agricultural lands and underground waters.

As 4 batteries were working until 1990 the output of the waste waters used to reach 140 m³/h. Since 1992 2 batteries are working and the output is 60-80 m³/h or 525 000-700 000 m³/per year. The same waste waters, used for a process of wet slaking, excerpt 2500-3000 m³/per year poisonous substances in the atmosphere which is nearly 40 % of the total pollution caused by the factory.

The alternative resolution approved in 1993 requires only the use of technical water in the process of slaking the coke. This leads to 92-95% reduction of the poisonous emissions in the atmosphere. All waste waters are slit up in the slime depot.

With this temporary measure air pollution is reduced but the problem of water purification remains.

Scope of Work

A durable, modern solution to the problem will be a new installation for biochemical purification of waters to degrees that conform to the norms required by the EC and the Ministry of Environment and Waters.

The realization of the project will lead to:

- elimination of the health ris;
- suspension of the underground water pollution;
- saving and re-using 525 000-700 000 m³/per year water;

Requirements

The project will be implemented by MP Kremikovtsy Ltd, under the Ministry of Environment and Waters and Sofia Community supervision and the control will be given to the Regional Environmental Inspectorate.

Time Schedule

6 months

Budget

The needed budget fot the instalation is 1 500 000 EURO and for covering the tailings pond (incl. covering of the pond surface with special plants or chemicals for reducing dust expansion and instalation of a pump system to bring back the slime waters) -100 000 EURO. There is a technical project documentation given in request .

Possible financial support from other sources

In April 1996, the MP Kremikovtsi Ltd asked for financial support / 4 976 000 SF/, from the National Trust Ecofund. The sum had to be used for the total reducement of polluted waters inflow and for tailing pond rehabilitation.This project is still not realised.

In 1998 the Ministry of Environment informed Kremikovtsi Ltd that the proposal will be included in the programme of the National Ecofund and will be presented to the National Trust Ecofund. The asked support was for 1 000 000 USD. There was no result.

In 2001 there were discussions for a possibility to obtain a credit from the World Bank, through the Ministry of Environment and Waters. Still no realisation.

Coordination

Ministry of Environment
Sofia Municipality
MK "Kremikovtsi" Company -
ASDE "ECOREGIONS"

