Design of Central Waste Water Treatment Plant Chemnitz-Heinersdorf

C&E · Consulting und Engineering GmbH



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Reference of graduated engineer Mr. F. Otto

Reference: Remediation of waste water treat-

ment plant Chemnitz-Heinersdorf, deconstruction and demolition, new construction of WWTP 450.000 PT

Location: Chemnitz

Client: Regional sewage association

of Chemnitz

Project Finalisation: 1998

Investment: approx. 142 Mio. €



Provided Services:

- Construction of a new WWTP and demolition of existing buildings, tanks and shafts
- Complete Design and Supervision (FIDIC) for the entire plant including stability verification, structural design, and landscape planning
- Project management and site supervision
- Planning and delivery of E/MSR-facilities
- Sewage sludge disposal concept
- Commissioning



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Description of the project:

- External development with a bridge across river Chemnitz
- 10,000 PE pilot plant, stormwater treatment plant for 17,000 m³/h
- Partial reconstruction and new building of a feeder flume with sediment trap and mechanical treatment stage
- Reconstruction of 14,000 m³/h waste water pumping station
- Biological waste water treatment with nitrification, upstream denitrification and biological phosphate removal
- Blower station including building, lime dosing station with acid capacity increase
- Sludge treatment by anaerobic stabilization (mesophilic digestion), mechanical sludge dewatering and sludge drying
- Sewage gas utilization in a combined heat power station, biological and chemical exhaust air treatment

Structures / Buildings:

- Primary sedimentation tanks: 2 double tanks each 50,5 m x 18 m x max. 7 m
- Denitrification basin: 1 circular tank 41,4 m x 18,6 m x 7 m
- Aeration tank 3 double tanks each 164 m x 35 m x 7 m
- secondary settling tanks: 4 circular tanks each 56 m diameter, 12 m depth (funnel)
- thickener: 6 cicular tanks each 14 m diameter
- cloudy water tank: 1 cicular tank with 16 m diameter
- preliminary clarification tank: 3 rectangle distributors each 14 m x 14 m x 6,1 m
- Rain overflow tank: 3 rectangle tanks each 46 m x 15 m x 4,3 m
- Buildings for mechanical engineering mechanisms
- Operating facilities such as factory, garages, workshops, camps and Laboratory building