

Benediktbeuern-Bichl

Sewage Treatment Plant Sandfiltration - Wastewater Disinfection



Regierungsbaumeister
SCHLEGEL



Client

Verwaltungsgemeinschaft
Benediktbeuern
[Benediktbeuern
Administrative Office]

Period

2002 - 2003

Project Cost

750.000 €

Abstract

In line with the special program „Bathing Water of Upper Isar“ in the Free State of Bavaria, a UV-irradiation unit was installed for the wastewater disinfection of Benediktbeuern-Bichl sewage treatment plant. Due to the poor water quality discharged from the existing clarifier, a sand filter system was installed prior to the disinfection unit inflow.

Being continuously washed, the sand filter system consists of 6 filter cells with an upward flow. The UV-irradiation is proceeded through application of altogether 16 low pressure radiators, installed in two successive irradiation banks and along two parallel channels. The capacity of the disinfection unit can be adjusted to the wastewater volume. The quartz radiators are equipped with an automatic cleaning system. With regard to hygienic and bacteriologic aspects, wastewater disinfection will contribute to a good water quality, based on EC-Bathing Water Guidelines. In addition to disinfection measures, a sludge liquor basin with a volume of 550 m³ was provided, in order to offer adequate storage capacity for sludge drainage.

Scope of Service

pre-design, design, approval design,
execution design, preparation of tender
documents, construction supervision, site
supervision
planning of structural framework
technical equipment

Technical Data

Capacity	8,000 PT
Sand filter system	6 filter cells
UV-irradiation	16 low pressure radiators
Q_t	40 l/s
Q_m	80 l/s
Filterable solids	< 10 mg/l
Transmission	> 65 % per cm
Minimum UV-irradiation dose	400 J/m ²
Nominal capacity of UV-irradiation unit	5 kW