



Wastewater Treatment Plant in Karviná

The state-of-the-art wastewater treatment plant meets all current requirements applicable to efficient treatment of wastewater. Its capacity is 88,000 equivalent population. Each day it is able to process as many as 30,000 m³ of wastewater.

History

- The original mechanical-biological wastewater treatment plant was put into operation in 1961. Later on, its capacity became insufficient and the plant was not able to meet new strict requirements which required efficient elimination of organic pollutants, nitrogen substances, and phosphorus. The fact that it was not possible to treat the wastewater almost limited development of the city in terms of residential construction, production, and services.
- At the end of the 1980s, the coal company, Ostravsko-karvinské doly, planned to extend coal excavation in that location and, in 1992, started building a coke oven plant whose wastewater, together with municipal wastewater, was supposed to be treated in a new wastewater treatment plant. The situation however changed, the construction project was discontinued, and SmVaK Ostrava had to provide an efficient solution with sufficient capacity for treatment of wastewater in Karviná.
- The work in progress was taken over by an investor, the original project was modified, and construction of a new modern plant started in autumn 1998. In spring 2001, the wastewater treatment plant was put into trial operation. Construction expenses were CZK 410 million.

Technical data

- A combined sewage system collects municipal wastewater from different parts of Karviná. The network receives also wastewater from industrial plants and civic amenities.
- The wastewater treatment plant in Karviná is a mechanical-biological facility with a low-load activation. It provides nitrification, pre-denitrification, and post-denitrification facilities. Units for increased biological and chemical elimination of phosphorus are available there.
- Primary and excess sludge is removed by mesophilic digestion. Mechanical dewatering is used for digested sludge. Gas is used for generation of heat and electricity.