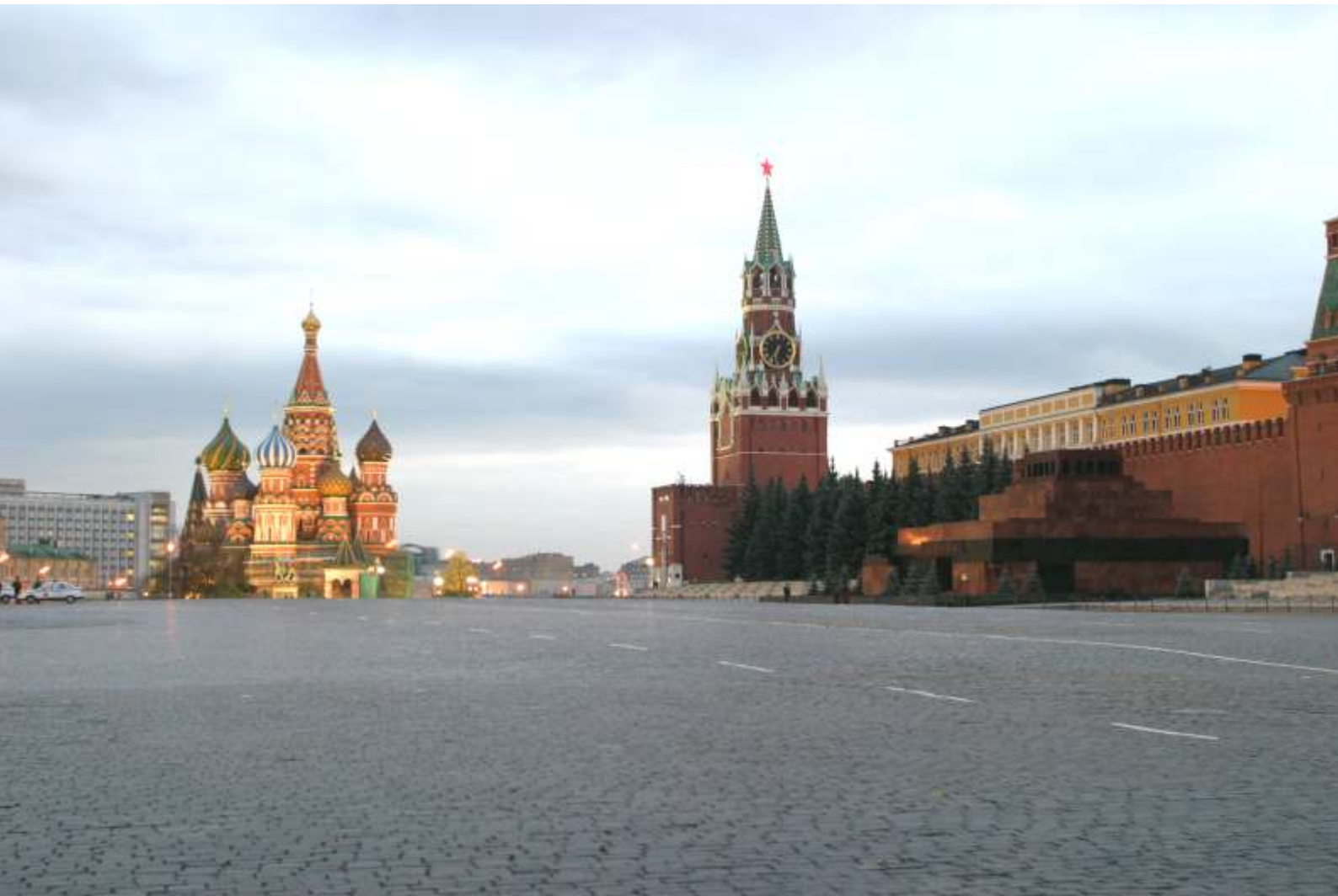


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# Drinking water production plant

## Moscow South-West

### Russian Federation



The drinking water production plant in Moscow counts among the most ambitious European challenges in the field of water technology. Providing a capacity of 250,000 m<sup>3</sup>/d this plant marks a new dimension due to its technology, its quality of treatment, as well as its security and environmental standards.

The ultrafiltration plant is Europe's largest ultrafiltration plant for domestic water treatment. In addition the south-west drinking water production plant was the first in Russian Federation to use ultrafiltration.

# Technical details

The process is based on a multi-barrier concept including ozonation, flocculation, sedimentation, sand-filtration, activated carbon treatment and ultra filtration.

## Project key figures

Commissioning January 2007

Operation WTE 10 years

## DWP key figures

PE 12 Mio.

Max. m<sup>3</sup>/h 11,420

Average m<sup>3</sup>/d 250,000

## Parameters (extract)

	Influent	Effluent
pH value	7.1 - 8.8	6 - 9
COD <sub>KMnO4</sub> (mg/l)	3 - 16	2
Colour (°Cr-Co)	9 - 37	10
Turbidity (NTU)	1 - 150	0.05
Virus reduction		99.99 %

All stages of the process from the pre-ozonation up to the membrane filtration are built as multi lines. The maximum amount of water to be treated is 11,420 m<sup>3</sup>/h at the inflow. This amount is increased by internal cycles up to 12,500 m<sup>3</sup>/h. A drinking water reservoir with a total volume of 40,000 m<sup>3</sup> is designed for covering daily variations.



The steps of conditioning enable to produce drinking water at highest quality levels, independent of the year's season and independent of the Moskva's raw water quality. It is this flexibility to activate/deactivate single barriers of the multi-barrier-system in order to economically optimize fresh water conditioning.

