

CASE STUDY

Surface Water Treatment for Boiler Make-up Water Use



**Background**

Novolipetsk Steel (NLMK) is one of the four largest steel companies in Russia. To complement their manufacturing process, demineralized water is required to be used as boiler make-up water. The source of the water is from the nearby Voronezh River.

**Solution**

The ultrafiltration (UF) membranes are part of the water treatment process for the boiler make-up water which includes NaOCl dosing, coagulation, UF and ion exchange, with UF acting as the final barrier against suspended solids even as the ion exchange resins subsequently remove the dissolved minerals in the water. EuroTec UF membranes are used in this plant since 2019 as an ideal replacement for the previous UF membrane after assessment that the EuroTec UF membranes would offer superior performance and durability without any need to modify on the existing UF skid and equipment.

Plant Location: Russia

Water Source: River Water

Application: Boiler Make-up

Operational Start Date: 2011

Replacement to EuroTec UF: 2019

UF Capacity: 5,280 m<sup>3</sup>/d

ETUF Module: ETUF-9060F

No. of Modules: 84

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