

COOLING HORIZON 2030 TO COMPLY WITH EMISSION STANDARDS

CASE STUDY



| Challenge

A glass bottle production customer in Belgium faced increasingly strict discharge limits. The parameters involved adsorbable organic halides (AOX) (< 0.5 ppm) and chemical oxygen demand (COD) (< 80 ppm).

The existing biocide treatment for the cooling system using Spectrus* OX1272, an oxidising biocide containing bleach, caused the undesired side effect of the formation of AOX, potentially leading to exceeded discharge limits.

Non-compliance with discharge limits may result in administrative fines or convictions. Fines for non-compliance with environmental standards can reach up to €50.000.

| Solution

The biocide treatment strategy was updated to the innovative, new-generation Spectrus OX1285. This product minimises AOX formation while providing optimal microbiological control.

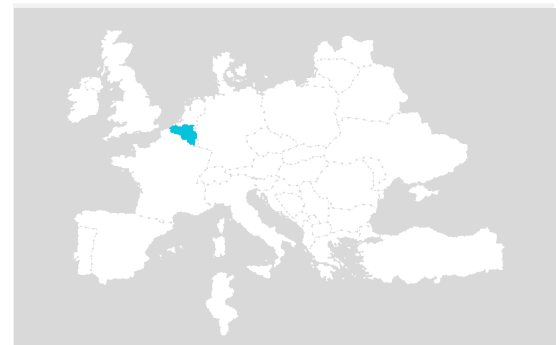
| Results

Following the implementation of this new product, the added value is multifaceted:

- AOX values decreased and remained below the 0.5 ppm limit.
- COD levels remained well below the 80 ppm threshold.
- Microbiology, including Legionella, remained well controlled. Microbiological counts and Legionella levels were well below the defined control limits.
- Total biocide consumption was reduced by approximately 2 tons per year.

The reduction in chemical consumption directly impacts the CO₂eq balance:

- on product production: -600 kg CO₂ equivalent per year (kgCO₂e/year).
- on the reduction in road transport (140 km one way): approximately -36 kgCO₂e/year.



Belgium

| Customer

Industrial company specialising in the production of glass bottles.

Key figures

~ 50 k€/year
Avoided potential fines

- 1,800 kg/year
Chemical consumption

- 0.6 tCO₂eq/year
Emissions avoided

**Reduced AOX formation
(avoided fines)**

*Trademark of Veolia; may be registered in one or more countries.