

## Reference case

### Cyanide removal as an alternative to classic wet chemical water treatment

#### The background

Traditionally wet chemical processes are used to remove cyanide from water streams often with hypochlorite. These processes create potentially toxic compounds (AOX) and have a low sustainability score coupled with relatively high operational cost.

#### The case

Then Chemtura, now Lanxess wanted a new and sustainable alternative for their wet chemical treatment using Sodium Hypochlorite. One of the main drivers was the high amount of AOX that process created and the operational cost.

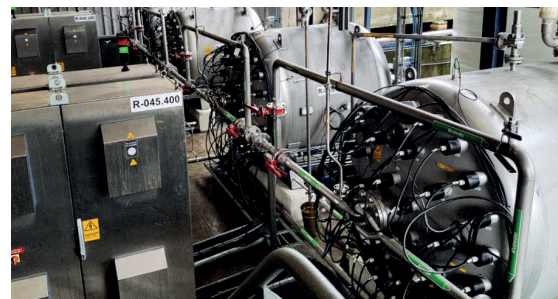
#### The solution

Preliminary research by Royal Haskoning (RHDHV) showed Advanced Oxidation to be a viable alternative that fitted all criteria. Van Remmen was chosen together with Antea and HMVT to engineer and test a system which was done in close cooperation with the customer.

#### Results

The eventual configuration developed and tested in close cooperation with the customer was capable to clean the water in almost half of the estimated time. The Advanox™ technology removed total Cyanide from

140-160ppm to <0.9ppm with extensive automation and integrated cleaning cycles.



#### Facts

##### Contractor

Chemtura/Lanxess

##### Location

The Netherlands,  
Amsterdam

##### Purpose

Cyanide removal

##### Solution

Advanox™ Flow series

#### Customer quote:

Paul Verkooyen, Lanxess: "From the start to the end of the project there has always been technical- and chemical theoretical support from Van Remmen UV Technology"