



Kruger Tissue Industrial Limited

Bolton UK

Advetec 2000 Case Study

Background: Advetec were invited to install Advetec 2000 bio-stimulant into the Kruger Paper Mill with the aim of reducing levels of COD and BOD being discharged after the effluent treatment process.

Implementation: After an initial survey, dispensers were installed at the primary effluent collection tank and the settlement lagoon. Effluent levels were monitored throughout the trial by Severn Trent Laboratories. Raw materials used within the process were also monitored to try and determine the main causes of high BOD levels. The trial was overseen by the Environment Agency.

Objectives: Prior to the assessment, Kruger Tissue's had recorded average BOD levels in excess of 200 mg/l when running standard paper pulp. In periods when heavy white letter and KLS paper were introduced it was not uncommon to see levels nearing 500mg/l. As a result, the Environment Agency was imposing significant fines and the prospect of closure was becoming a realistic possibility.

Result: The initial data presented by the Environment Agency indicated that following average discharge levels:

- COD 650 mg/l
- BOD 250 mg/l
- TSS 38 mg/l with daily flow at 3300m³/day.

From the above indicated data a noticeable difference was recorded in the settlement lagoon shortly after the assessment commenced. Subsequent readings showed the product had indeed started to increase the bacteriological activity. By the end of the initial assessment period the following results had been recorded:

Average levels during 30 days of treatment with Advetec 2000

COD reduction	650 mg/l to 154 mg/l - 76% Reduction
BOD reduction	250 mg/l to 66 mg/l - 74% Reduction
TSS reduction	38 mg/l to 8 mg/l - 79% Reduction

Kruger Tissue had been set a consent level for discharge of 50mg/l BOD. During the trial of Advetec 2000 this level was met and exceeded for the majority of the period. Specific instances where heavy loads of organic material were monitored when KLS and white heavy letter raw materials were used. After completing the evaluation of Advetec products, Kruger Tissue Paper Mill decided to treat its discharged effluent with Advetec products on an ongoing basis.