

## Dolphin Bay Chemicals develops technology to promote accuracy



*Dolphin Bay technical advisor, Jarome Levendal, left, explains the SECURUS AT system to Low's Creek's plant operator, Wilson Lamula.*

### **NO MORE DEPENDENCE ON OPERATORS FOR TITRATIONS, THANKS TO SECURUS AT**

In their quest for accuracy, Dolphin Bay's chemical specialists has taken an innovative approach to solve the problem of determining the correct solution strength of Permasure CCA - by using existing technology and adapting it to its specific needs.

Traditionally used in the food trade, the idea to eliminate the operator in the titration process came about when their client, Low's Creek in Mpumalanga, approached Dolphin Bay to find a resolution to the inconsistent results they were getting from treatment operators which is also a general industry problem.

"The titration used to determine solution strength of Permasure CCA is very important, and even small variations will make a huge difference to the actual retention of CCA in the timber," says Chemical Laboratory Manager, Navi Moodley.

We knew that if we could automate the process, then we would be able to help our client achieve better accuracy, save time, cut down on possible wastage on over-treatment and ensure delivery of a better product.

Dolphin Bay chose to use a German-made model that is known for its versatility and adaptability. Moodley had to carry out a careful study of the titration in use; to determine solution strength.

"The pH value (a logarithmic scale which is indicative of the acidity or basicity of a substance) at the end-point of the titration was carefully observed and an equation developed and programmed into the auto-titration unit. We also used various volumes to find which would work the best and tested a wide range of solution strengths," says Moodley.

He adds that as far as he knows, Dolphin Bay is the first company in the country to make use of this technology and they named their adapted auto titrator, Securus AT (Securus is Latin for "easy" and AT stands for Auto Titrator).

Feedback from Low's Creek has been very positive after Moodley installed the unit at their plant earlier this month.

"Their results are now consistent across operators we will continue to work with Low's Creek to ensure the unit continues to operate correctly," says Moodley.

Marius Vermaak, quality and control manager at Low's Creek, says the auto titrator has improved the traceability of results.

"The results are automatically transferred into Adobe format, which cannot be changed by operators, and gets directly downloaded onto my computer. This process will definitely improve accuracy," says Vermaak.

Moodley says Low's Creek openness to new ideas and technology made them the ideal partner to work with on this project.

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