

ENVIRONMENTAL STEWARDSHIP BEGINS WITH INNOVATIVE WASTE MANAGEMENT

Waste management has long been an important sustainability measure in the area surrounding the Sugar Refinery in the Durban South Basin. Having been established in 1910 to refine raw sugar into white sugar, the Tongaat Hulett Sugar Refinery uses the carbonatation process as its clarification process, with powdered lime as a key ingredient.

In 1998, the Department of Water Affairs and Forestry introduced new waste classification legislation which resulted in the waste material being reclassified from a general waste to a hazardous waste material. With the Refinery being located in an urban area landfill disposal was originally the only option for solid waste disposal, at a cost that increased from R200 000 to R1 000 000 within a year. As a result of this increased cost, management began to explore alternative uses for the material.

Oricol Environmental Services approached Tongaat Hulett in 2009 with a view to implementing a project for diverting the material from landfill and using it as a lime replacement in the agriculture industry. Several tests were done with the South African Sugar Association to assess the potential value of the material and it was found that the calcium levels were significant warranting further investigation, including the performance of an environmental due diligence review.

The environmental due diligence involved testing to ensure that there were no heavy metals present in the filter cake that may cause environmental problems, health hazards or potentially have adverse effects on the crops where the material was to be used. It was found that the metals present in the filter cake were much lower than the limits laid down in the guidelines and it was agreed that the project could be progressed.

Oricol then started removing a portion of the waste material on a trial basis and once enough market information had been gathered and the materials handling issues addressed, Oricol committed to taking the entire volume of waste material subject to final approval from the environmental authorities.

In March 2010, the Kwazulu Natal Department of Environmental Affairs issued a letter qualifying the material as a “by-product”, which meant that it would be exempt from the waste legislation requirements. The project then commenced on full scale basis resulting in Tongaat Hulett dramatically reducing the amount of hazardous waste generated at its Refinery operation.