

ULTIMATE SERVICE

SITA ENERGY FROM WASTE FACILITY, DOUGLAS, ISLE OF MAN
BUXTON LIME TECHNICAL SUPPORT

 **LAFARGE
TARMAC**

BUXTON LIME & POWDERS

Product QUICKLIME CALBUX 90
Client SITA, ISLE OF MAN
Location DOUGLAS, ISLE OF MAN

CALBUX 90

Quicklime for flue gas cleaning

THE CHALLENGE

The Isle of Man Energy from Waste facility recycles 60,000 tonnes per year of household refuse into electricity to supply 10% of the island's needs. Combustion gases from the process are treated in a sophisticated filtration and chemical treatment system which uses lime as the main chemical reagent to ensure that no pollutants are released into the air. In the Douglas facility the lime is made into a liquid slurry before injection into the gas stream where it reacts with the pollutants to form solid residues which are then filtered out. Optimising the efficiency of the gas treatment system is a priority to ensure that emissions are correctly controlled without excessive consumption of lime and other chemicals. The operation of the lime handling and processing system is a key element in optimisation.

OUR SOLUTION

Buxton Lime and Powders Technical Sales team worked with the SITA IoM operations team to select the ideal grade of quicklime, and recommend modifications to the system and controls to give reliable operation and efficient, economic use of the product. Site visits were undertaken by Buxton Lime & Powders Technical Sales Team to observe the system in operation and provide recommendations to ensure reliable accurate handling, and improved process efficiencies equipment. An operational survey of the process together with analysis of the chemical and physical properties of the lime slurry and review of plant monitoring data was carried out, leading to a process of optimisation based on the findings of the survey and analysis.

RESULTS AND BENEFITS

Buxton Lime and Powders support and technical expertise has helped the Douglas facility to achieve a very low consumption rate of lime whilst maintaining emissions at levels well below the regulation limits.

"We at SITA Waste Isle of Man have benefited from a long relationship with Buxton Lime which has resulted in the lowest lime ratios in the group due to the optimised slaking process which Buxton Lime helped us with. Buxton Lime has also helped with monitoring and advising of ways to further improve the efficiency of our slaking process to allow us to meet the requirements of our license in the most efficient manner."

Gerrit du Toit
Plant manager
SITA, Isle of Man



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