



HOLCIM BULACAN PLANT

Nozzle Angle Modification and Armour Ring Adjustment to Increase Raw Material Flow at Raw Mill

SUMMARY OF THE OPTION

HOLCIM (formerly Union Cement Corporation) Bulacan plant located in Bulacan, Philippines, and produces about 1.9 million tons of cement per year.

The specific power consumption of the raw mill is about 37 kWh/ton. Power consumption is influenced by the “grindability index” of raw materials, which varies from one mine to another. This relatively high power consumption can be reduced in two ways:

- Modifying of the nozzle angle by up to 90°, which results in higher vertical velocity, lower recirculation and reduced travel time of the raw materials from the nozzle to the classifier.
- Adjusting the armour ring, and as a result the airflow from the mill inlet is guided by a 10° vertical angle instead of a 15°-18° angle. This adjustment lowers the recirculation of raw materials on the table.

Projected savings are about 0.5 - 0.8 kWh/ton, but at time of writing of this case study, this option still had to be implemented.

KEY WORDS

Cement, Philippines, Raw Mill, Nozzles

FOR MORE INFORMATION

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