Application Note

MV:-AUS-06

INDUSTRIES

coal

iron ore

cement

minerals

Our Customer

Our client is a leading global coal company, serving power and steel customers in more than 25 countries on six continents. They have 23 mines and associated processing facilities in Australia and the USA.

Site Location

The operation is an open-cut mine located south west of Mackay, in Queensland, Australia. Coal from the mine is railed to the Dalrymple Bay Coal Terminal on the east coast of Australia, where it is exported to customers in North Asia, China, Brazil and Europe.

The Product

The mine produces low-volatile pulverized coal injection (PCI) coal, coking coal and thermal coal.   Particle size is less the 50mm. Density ranges from 850 to 900 kg/m^3. Moisture ranges from 2-8%. Ash content is in the low to medium range and varies significantly. Coal is washed in the coal beneficiation facility to meet customers required quality specification.
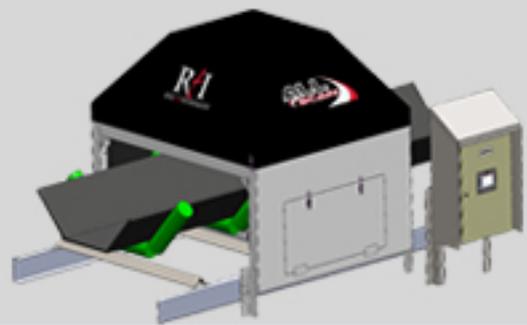
Installation

RTI's AllScan Online PGNAA Analyser is installed on an 1800mm belt conveyor with a troughing angle of 35%. The analyser is located on the train load out conveyor leading from the stockpile yard to the train load out.

Purpose of the Analyser

The purpose of the analyser is to monitor the ash content of the coal being loaded onto the train to ensure that it remains within specification. The AllScan provides the necessary information on coal quality to enable operators to draw material from different areas of the stockpile so as to maintain the overall quality of the shipment.
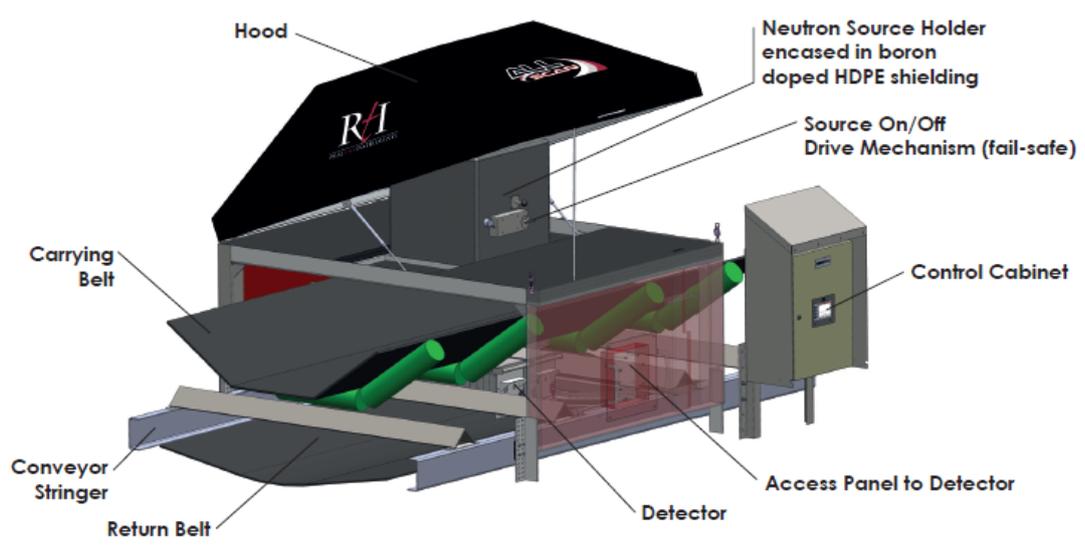
Benefit of the Customer

The analyser ensures the train shipment meets contractual specifications so as to avoid penalties for out-of-spec product.

Material handling benefits also accrue as the real-time information on coal quality provided by the AllScan takes the "guess work" out of stockpile reclaiming ensuring that coal of the required quality is reclaimed and sent to the train load-out.

The AllScan®

The AllScan is a new-generation online elemental analyser that uses PGNAA (prompt gamma neutron activation analysis) technology to accurately measure the chemical composition of most bulk materials. The analyser combines practical operational features with sophisticated hardware and software resulting in an analyser that is easy to install, calibrate, and maintain, and above all, is extremely accurate.

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Labels: Hood — Neutron Source Holder encased in boron doped HDPE shielding — Source On/Off Drive Mechanism (fail-safe) — Carrying Belt — Control Cabinet — Conveyor Stringer — Access Panel to Detector — Return Belt — Detector

Contact Us

For further information please contact Realtime Instruments or an RTI Distributor in your counrty. Visit www.realtimegrp.com for contact details.