

Dust suppression during railcar loading controlled by ultrasonics

Pulsar Process Measurement of Malvern, UK, has supplied non-contacting ultrasonic equipment to initiate and switch off dust suppression systems at a rail loadout site and nearby conveyor transfer point operated by Lafarge Aggregates in Leicestershire. A number of methods had been tried previously, ranging from load sensors on the conveyor to optical systems on the railcars. None had proved sufficiently reliable or accurate. On the railcars Pulsar supplied a blackbox control unit with a dB10 transducer providing a measurement range of up to 10m. During loading, as soon as a railcar has reached the “full” level a relay signal initiates the spray system and the top layer of stone is doused with the liquid dust suppressant formulation. The ultrasonic unit will not allow the stone to be sprayed until it sees a full level, and it also switches off the spray between cars. www.pulsar-pm.com



Pulsar ultrasonic device (right) controls railcar dust-suppressant spray