



● Case Study

BPB Kirby Thore

Fact file

Location: BPB Kirby Thore (UK)
Product: ESP Application
Principal: Primasonics® International Ltd (UK)
Problem: Solution required for the cleaning of their Perlite ESP charged plates and hoppers.

Client Background

After experiencing great success with Primasonics® cleaners used for cleaning pulse-jet fabric dust collectors and ducting BPB staff at Kirby Thore, Northern England approached PRIMASONICS® for a solution for the cleaning of their Perlite ESP charged plates and hoppers. The equipment is an ABB Flakt two field, rigid frame Electro-static precipitator fitted with four sets of tumbling hammers. The maintenance cost for this is £10,000 per year excluding costs for downtime. The wrapping system was employed for five seconds every ten minutes but this causes surging problems so it was a continuous wrapping system at the time they contacted Primasonics®. The ash takeaway was continuous.

THE APPROACH

Primasonics® staff visited the plant at the request of Mr Ian Brennand Works Engineer to inspect the ESP and recommended two Primasonics® cleaners between the inlet and the front face for the first field, and one Primasonics® cleaner between the back face of the first field and the front face of the second field and a Primasonics® cleaner between the back of the second field and the outlet. The mid frequency horn at the back is to stop re-entrainment during a shut down period. A trial request form was then filled in by BPB staff and returned to Primasonics®.

THE SOLUTION

PRIMASONICS® supplied the Primasonics® cleaner directly to the Kirby Thore plant, along with the accessories required i.e. mounting tube and flange, solenoid valve, flexible air line pipes. The mounting rings were welded onto the ESP's hot roof and the Primasonics® System was installed according to the detailed instructions supplied.

Safe, automated, effective prevention and removal of dry powder, particulate build up and blockages.

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The trial commenced on 12 March 1998 and was extended by a rental period for 6 months to observe the trend in the efficiency of the ESP. Over a period of time Primasonics® engineers made several visits for on site discussions and adjustments.



THE RESULT

The result was exactly what Ian Brennand had hoped for. The Primasonics® Cleaners not only kept the plates clean but also cleaned the internal roof, walls, baffles and hoppers. He was able to turn off the mechanical rapping equipment and as Primasonics® provide a three-year guarantee, his costs now are extremely low and containable. We are unable to publish details of particle emissions from the plant due to BPB company policy. The particle emissions are however reduced and are significantly below the ever-tightening action limits imposed by environmental legislation.

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