



Fact file

Location - Fibrogen - Flixborough Industrial Estate, Scunthorpe

Product - power station application - PAS 230 X 3 and PAS 100 x 5

Principal - Primasonics International Ltd (UK)

Problem - hard formations had coated the heat exchange pipes.

Client Background

The 13.5 MW plant at Glanford was the world's second poultry litter fired renewable energy power station. In May 2000 the plant was re-commissioned to burn meat and bone-meal (MBM). This is a gate fee fuel produced, initially, as a result of the government scheme to combat the BSE crisis. In January 2004 the planning permission for the site was extended to allow MBM from any source and any other biomass to be burned. Glanford can now look forward to burning gate fee fuels for the long term. The 89,000 tonne annual fuel requirement is procured by a dedicated EPR team. Operation and maintenance is carried out by EPR. Glanford is a highly reliable plant. The plant is located on the Flixborough Industrial Estate, Scunthorpe, North Lincolnshire. Primasonics were approached by Glyn Andrew in January 2001, due to the nature of the ash produced very hard formations had coated its heat exchange pipes which required him to make regular shutdowns and manual cleaning. In an effort prolong the time between shutdowns Glyn had tried a number of approaches: steam blowers were tried but had a very incomplete coverage and caused boiler tube erosion which resulted in leaks, an Infrasonic cleaner of unknown make was tried but this resulted in resonance problems, finally tumbling shot while this was helpful in preventing build up associated maintenance costs were very high.

**THE APPROACH**

Primasonics engineers visited the site and discussed these challenges with Glyn and other plant and process engineers. The correct frequencies of acoustic cleaners were then calculated and Glyn Andrews was presented with a quotation. As Glyn had previously tried a competitors acoustic cleaning equipment he was concerned that similar resonance problems would reoccur. Primasonics staff were however confident in their product and allowed Glyn to try this equipment in his economiser section.

**THE SOLUTION**

Once Glyn had seen the results of the trial he was happy to install acoustic cleaners throughout his boiler section and purchased 3 x PAS-230 Acoustic Cleaners and 5 x PAS-100 Acoustic Cleaners.

**THE RESULT**

No other cleaning method is now used and unplanned shutdowns due to the need of boiler cleaning or tube erosion are now prevented. The acoustic cleaners have been in place since May 2001 and have required maintenance only once in February 2005, during this maintenance program only one part needed to be replaced on each acoustic cleaner.

