

RJAH HOSPITAL WEST, ENGLAND

- Energy efficiency upgrade project.
- Autoflame Mk8 EGA Evo and Mk8 MM POD mounted controls on Limpsfield LCN025 burners with FGR pipework to facilitate...
 - » Low NO_x
 - » A high turndown ratio
 - » Emissions monitoring

"Great workmanship. All engineers on-site & off-site were extremely helpful"

PROBLEM

- Our initial site survey identified the existing burners were outdated with a **low turndown ratio** and **higher than average O₂ values**.

GOALS

- **Increase efficiency & reliability** of the boiler plant
- **Reduce fuel consumption and cost**
- **Reduce O₂ & NO_x levels**
- **Carbon Reduction**
- **To monitor and log emissions**
- Ensure new burners operate with the lowest level of **excess air** to enable complete combustion

RESULTS

✓ **Emission Reductions:** Original emissions of between 5-9% O₂ were reduced to 3%.
✓ **NO_x Reductions** MCPD Compliant

✓ **Reduced Maintenance** ✓ **Energy Savings**

STRATEGY

- The existing burners were upgraded to **Limpsfield LCN025s** to ensure a **high turndown ratio** (6:1) and to provide the most **efficient combustion** performance throughout the firing rate. 3% O₂ is achieved from low fire to high fire, with zero CO.
- A complete **Autoflame Mk8 combustion management system** was installed to ensure a **high combustion performance**. This is **safely maintained** by constantly error checking fuel valve, air damper and FGR valve positioning, 50 times every second.
- To ensure this level of combustion performance is maintained 24/7/365, the **Mk8 EGA Evo** was installed. The EGA triggers small changes to the air damper position to **trim** the performance and **maintain commissioned values**. This not only looks at O₂, but also CO₂ and CO, while monitoring and recording NO_x levels.

EQUIPMENT

Pre-Existing



3 x 3200 kg/hr.
Robey Loos
steam boilers

3 x Unigas
burners

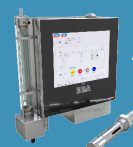
Newly Installed



3 x Limpsfield
LCN025 burner
with FGR and
POD mounted
Autoflame Mk8
MMs



Autoflame
Mk8 DTI



Autoflame
Mk8 EGA Evo

