



# contract report

## Genentech

**Customer:**  
Genentech

**Location:**  
San Francisco, CA, USA

**Boiler Type:**  
1000HP Johnston  
Boiler

**Burner Model:**  
LCN123

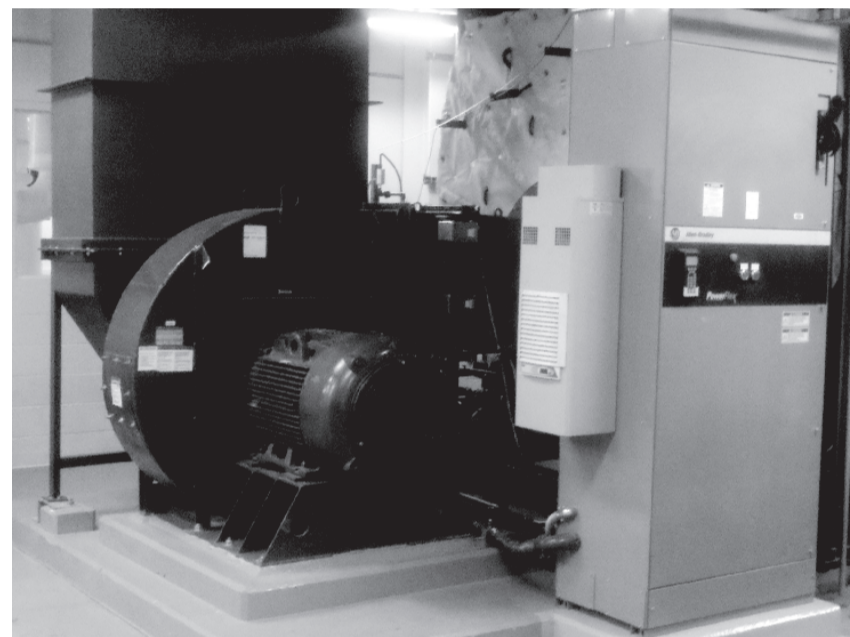
**Fuels:**  
Natural Gas

Genentech is a world-renowned biotechnology company based in San Francisco, California which specialises in developing medicines and treatments for terminal illnesses using human genetics.

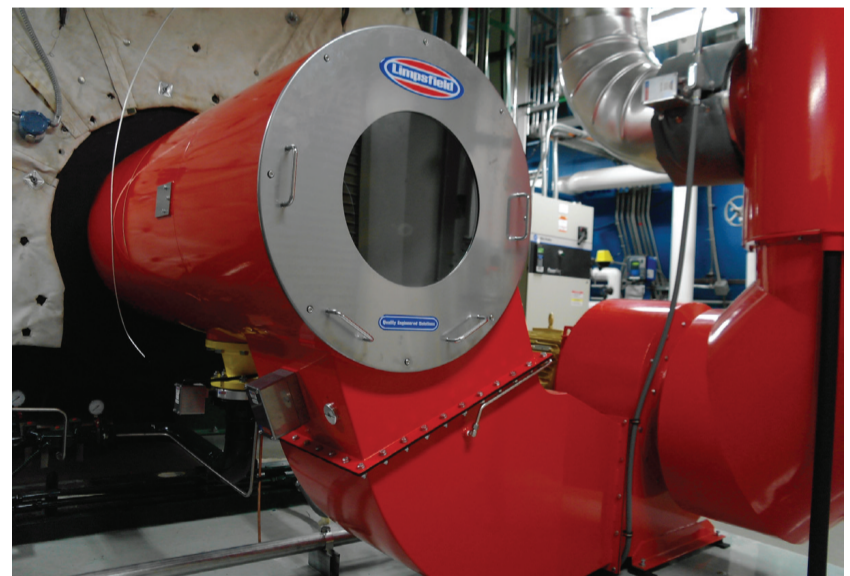
Steam is frequently used throughout Genetech's manufacturing plant, hence it is vital for them to employ efficient boiler systems in order to comply with environmental standards.

Their existing boiler system had many issues including fan and structural vibrations as well as flame failures. Also, in a bid to reduce Nitrogen Oxide (NOx) emissions, the burner was running inefficiently at O2 levels of 8%. In light of this, Genentech set out to upgrade this system to a solution that would improve overall reliability and efficiency, at the same time maintaining their steam capacity. One Source Engineering, who is a Limpsfield Tech Centre based locally in California, was selected to undertake this turnkey project.

Ultimately, the burner was replaced with a Limpsfield LCN123 burner firing Natural Gas at a maximum rate of 42MMBtu/hr. This, like all Limpsfield burners, came with a performance guarantee to operate at levels no higher than 3% throughout the firing range with 5:1 turndown ratio, whilst maintaining CO and NOx levels a below 10ppm and 30ppm respectively.



Before: Inefficient, faulty burner



After: Fully modulating LCN100 burner

The installation included Autoflame's MM control panel, which incorporates an Exhaust Gas Analyser (EGA) to precisely monitor emissions. Overall, the project was able to meet all Genentech's objectives, including their steam requirements which were specified in their Steam Reliability Study which they commissioned for the on-site engineers.

For more information on the Limpsfield burner range, please do not hesitate to contact us.



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