

## ThermaScope® Powers On in Puerto Rico



*PREPA Aguirre Plant, Puerto Rico*

Thermoteknix recently installed a new ThermaScope® high temperature camera system for Puerto Rico Electric Power Authority (PREPA). PREPA's 900 MW Aguirre Power Plant, located in Salinas operates two heavy fuel fired boilers each containing 16 separate burners situated in the corners of the towers.

For PREPA, it was essential to see inside the boilers to optimise the combustion process to maximise efficiency and monitor safety. The company had previously used traditional video cameras from other manufacturers but due to flaws in design, these systems had had a tendency to overheat and burn out which is why the power company approached Thermoteknix' Puerto Rican agents LT Automation for a solution.



*ThermaScope® SLK*



*Installing ThermaScope*

Thermoteknix' ThermaScope® SLK is a high temperature, fully radiometric thermal imaging camera that displays bright clear real time thermal images of high temperature processes and measures temperature at every point in the field of view. The camera is housed in a water cooled stainless steel unit with internal air cooling for the camera itself



*Installation complete – with cover removed*

to purge the lens in order to provide clear imagery even in the most dusty of conditions.

ThermaScope® also features a fail-safe retraction system which automatically pulls the camera back and away from the heat should either the air, water or power supply fail. The result is a rugged and reliable

camera system which gives the process engineer or control room operator advanced viewing and analysis tools with control interface signals for closed loop control.



*Real Time Thermal Imagery as viewed in the control room at the PREPA Aguirre Power Plant*

Thermoteknix mounted a ThermaScope® boiler camera in each of the boilers at the top of each tower looking downwards over the burner zones. The cameras were networked to the control room to give PREPA's engineers a crisp, real time display of the combustion process in each boiler and now have the added advantage of not only being able to monitor the process but actually measuring accurate temperatures within it.



*The combined ThermaScope and Video view in the control room. Engineers wanted to view smoke coming from the towers simultaneously with the thermal imagery*

PREPA also wanted to view normal video of the outside of each chimney stack simultaneously with the ThermaScope® thermal image data in order to monitor smoke escaping from the boilers so a 'picture in picture' view was also set up (left).

Thermoteknix has more than 25 years' experience of designing and manufacturing high temperature cameras for use in harsh environments such as cement kilns, furnaces and boilers.