



Case in Point



Sandia National Laboratories in Albuquerque, New Mexico Decentralize Steam Plant with Lochinvar KNIGHT and PowerFin Boilers

In 2004, Sandia National Laboratories, located at the Kirtland Air Force Base in Albuquerque, NM, began researching what it would take to decentralize the steam plant that had been in use on the base for years. With the high cost of maintaining the steam system, the goal of this Heating System Modernization program was operational efficiency and Lochinvar was able to provide the solution.

Engineers at Sandia National Laboratories worked with a local Albuquerque engineering firm, Bridgers & Paxton, to conduct a study to determine the best approach to take for the decentralization project.

As the team of engineers evaluated the situation and considered different options, they turned to The Socha Company, a local sales

representative firm, for their insight on the most efficient applications. The Socha Company had played a key role in supplying hydronic and domestic water heating equipment for many new construction projects at Sandia National Laboratories and they had developed strong relationships with the contractors and engineers involved in those jobs.

Since Lochinvar's high-efficiency boilers had been successfully installed in other new construction projects, The Socha Company recommended Lochinvar units for the decentralization project as well. Lochinvar was selected for the job because of the footprint of the boilers, the ease of installation, the efficiency and the ability to coordinate with the controls of the building management system being used by Sandia National Laboratories.

PROJECT:

SANDIA NATIONAL LABORATORY

LOCATION:

ALBUQUERQUE, NM

LOCHINVAR PRODUCTS INSTALLED:

MULTIPLE POWERFIN BOILERS
MULTIPLE KNIGHT BOILERS
MULTIPLE BUFFER TANKS
MULTIPLE INDIRECT WATER HEATERS

DESIGNER/CONTRACTOR:

EEA Consulting Engineers in Austin, TX





PowerFin Boiler installation at Sandia National Laboratories

In 2006, the team selected EEA Consulting Engineers in Austin, TX to design the entire decentralized system. The engineers from EEA and Sandia National Laboratories then met with the technical team at the Lochinvar factory in Lebanon, TN to review specifications, controls and delivery. Ultimately, the engineers decided that the project required 111 boilers and that Lochinvar boilers would be the basis of the project.

Construction began in 2007. That year alone, 22 buildings were taken off of the central steam plant and boilers were installed in each building or in some cases, a boiler plant for a group of buildings. In fact, one of the larger heating plants features 12 Power-Fin PBN2001 Boilers. The first phase of this project required a total of 53 Lochinvar KNIGHT and Power-Fin Boilers.



PowerFin Boiler installation at Sandia National Laboratories

In 2008, the team installed 32 more KNIGHT and Power-Fin Boilers, and the job was finalized in 2009 when the last 26 Lochinvar units were installed. In addition, a total of 20 Lochinvar custom boiler buffer tanks and indirect domestic hot water heaters were installed as part of the decentralization project.

In total, 47 buildings were converted from the centralized system to local boilers. The new heating system will save nearly 12 million gallons of water a year, and it is expected to reduce both energy usage and pollutants by about 60 percent.

The obsolete 18,000 square foot steam plant was demolished in May 2010, marking the official completion of the Heating System Modernization program.



Two Knight Heating Boilers installed at Sandia National Laboratories

For information about high-efficiency boilers and water heaters from Lochinvar, visit www.Lochinvar.com.

ABOUT LOCHINVAR

Lochinvar Corporation is a leading manufacturer of high-efficiency water heaters, boilers, pool heaters and storage tanks. Based in Lebanon, TN, with facilities in Detroit, Orlando, Tampa, Pompano Beach, Dallas and Phoenix, Lochinvar stocks all products in all locations.

