

Efficient and Reliable Power for Vidant Edgecombe Hospital



Challenge

Since 1916, Vidant Edgecombe Hospital has provided the people of the town of Tarboro and Edgecombe County, North Carolina with top-notch care close to home. The 117-bed facility provides comprehensive services, from outpatient clinics to acute short term care, and boasts professionals in more than 20 specialties. Their comprehensive care includes rehabilitation services, cancer care, birthing and surgery centers, diagnostics, and more. For a small town hospital, Vidant Edgecombe provides important services and excellent care to its community.

As with all hospitals, it is crucial that Vidant have reliable, consistent heating and power supplies for all parts of the hospital, from the operating rooms to the laundry facilities. Backup systems are also standard at hospitals in case a primary system fails. Vidant relied for many years on two boilers

*Improvements
resulted in more
than 10% in
energy savings
per year*



to heat the facility 24 hours a day, seven days a week. Over time the boilers started losing efficiency and needing frequent repair, and the hospital administration knew it was only a matter of time until an overhaul of the system would be required.

Brady has performed routine maintenance on the hospital's HVAC system for many years, and they kept the facility engineer apprised of the situation as the boilers' performance continued to diminish. Eventually the boilers were frequently unable to maintain a full steam load, which is critical to many of the hospital's operation. They had also become very inefficient and carbon monoxide (CO) emission-heavy due to incomplete natural gas combustion.

Brady recommended the administration consider a permanent solution to the problem. The administration assumed they would have to replace one of the boilers or add a third boiler to the system, both very expensive and time-consuming efforts. But when they sat down to discuss the options with Brady, they were happily surprised to learn a better solution was available to them.

Solution

Brady explained to Vidant that the root of the problem was the boiler burners, a much smaller issue to address than an entire boiler. Brady recommended not only replacing the faulty burners, but replacing them with high-efficiency burners with state-of-the-art controls. This, they explained, would provide the hospital with more precise control over the boilers and also substantial energy savings.

Vidant trusted Brady's expertise and integrity, so they contracted Brady to design and complete the needed repairs. The first burner retrofit took place in 2011, and as a result the entire hospital was able to run on that one boiler when necessary. The second burner retrofit was completed the following year and further enhanced the hospital's assurance of reliable service.

Results

The new burners now provide the hospital with consistent 24/7 temperature control as well as the comfort of knowing that one of the boilers can serve as a backup if needed. The high-efficiency burners provide a 3% O₂ guarantee across the firing range, and have reduced the boilers' CO emissions from more than 2,000 ppm to less than 10 ppm. These improvements are also providing the hospital more than 10% in energy savings per year. Reliability and savings from Brady and the new burners!

