

## **Build, Own, Operate and Maintain Program**

### **Contractor Responsibility for Facility Steam Plant Offers Numerous Advantages**

There are an increasing number of situations where the concept of an outside contractor building, owning, operating, and maintaining (BOOM) a facility steam plant offers distinct economic and technical advantages to companies and institutions. Such was the case with the United States Naval Air Station (NAS), located in Jacksonville, Florida.

Nationwide Boiler was the successful bidder in a competitive-bid, fixed-price contract to install, operate and maintain a 200,000 lb/hr facility boiler system with a full complement of ancillary equipment. Overall, the equipment supplied remained the property of Nationwide Boiler. The contract required that Nationwide Boiler make all necessary modifications to an existing boiler room, install the specified equipment, and operate and maintain the system for a period of five years. Renewal provisions were included in the contract.

The existing NAS Jacksonville steam plant facility was surveyed and the required physical modifications necessary to accommodate the new boilers and ancillary equipment were completed using local contractors under the direction of a Nationwide Boiler field superintendent. Three new 75,000 lb/hr package boilers rated at 350 psig pressure were installed, complete with safety valves and automatic level and pressure controls. These units also included low NOx burners and economizers. A new water treatment plant was also provided and installed.

System tests were conducted to verify optimal performance of the boilers and also demonstrated that NOx emissions would easily meet the most stringent requirements throughout the turndown range. The entire project was completed in less than 45 days, making maximum use of fast-track procurement as well as management control techniques.

Nationwide Boiler's vast experience with the design of temporary and permanent steam plants was a major factor that led to the success of this project. In addition, having equipment on hand and ready to ship immediately, made this fast-track project a reality.

Overall, the contract with the NAS remained in effect for over six years and the steam plant was eventually decentralized. Nationwide Boiler continues to offer BOOM solutions to projects of all sizes and continues to stock a large supply of new and reconditioned boiler equipment for rent, lease or for sale.

#### **Customer Profile**

- U.S. States Naval Air Station
- Jacksonville, FL

#### **Supplied Equipment**

- Three (3) 75,000 lb/hr, 350 psig package watertube boilers including safety valves, automatic level and pressure controls
- Each boiler was fitted with a low NOx burner capable of burning natural gas and #2 oil and utilizing flue-gas recirculation to limit NOx emissions to below 30 ppm
- Make-up deaerator/condensate and feedwater system with pumps, valves, controls and instrumentation necessary to receive returning condensate, to provide deaerator make-up water, and for pumping feedwater to the boilers
- Water treatment systems, including softener, chemical feeders and water sampling station
- Condensate polishing equipment
- Blowdown tank
- Heat recovery system

*In addition to the equipment listed and taking full turnkey responsibility for installation, design, and on-site project management, Nationwide Boiler provided boiler operators for 24-hour operation, complete system inspection, and all water treatment chemicals.*