

## Petroleum Refining

### World's Largest 110,000 lb/hr Trailer-Mounted Superheat Boiler Provides Increased Steam Capacity

North Atlantic Refining LP (NARL) is located on Canada's east coast in Come by Chance, Newfoundland. With one of North America's largest refinery docks, NARL refines over 130,000 barrels of oil per day and utilizes clean fuel hydrocracker technology for a low-sulphur, clean end product.

NARL initially contacted Babcock & Wilcox Canada in need of a new boiler to provide an additional 75,000 to 150,000 lb/hr of superheated steam for their refining process. Due to the quick-ship nature of this project, Babcock & Wilcox recommended Nationwide Boiler for fulfillment through their stock boiler program. A variety of superheat options were offered, including two (2) 75,000 lb/hr boilers, one (1) 110,000 lb/hr boiler, or one (1) 200,000 lb/hr boiler. All of the proposed units were 750 psig design / 750F superheat and were in-stock and available immediately. In addition, Nationwide Boiler presented the option to convert any of the proposed units to #6 oil or refinery fuel firing, per the customer's request. This involved the addition of soot blowers, changing out oil valves and controls, and providing an alternative economizer design.

NARL weighed these options and ultimately decided to purchase the in-stock 110,000 lb/hr, 750 psig / 750F superheat, Babcock & Wilcox package watertube boiler. This unit included a low NOx dual-fuel burner, standard EconoStak economizer, and a fully metered cross limited control system with a 300 hp VFD driven fan. Nationwide Boiler also performed burner modifications to allow firing on the plant's refinery fuel. The 110,000 lb/hr boiler is the world's largest trailer-mounted superheat boiler, and the first of its kind.

The boiler was shipped by truck on its 135 foot trailer from the Babcock & Wilcox manufacturing facility in West Point, Mississippi to a ferry located in Sydney, Nova Scotia. Once it arrived in Newfoundland, it traveled an additional 700 miles to the NARL refinery. Upon delivery, the boiler was removed from its trailer and installed on a brand new concrete pad. Nationwide Boiler performed start-up and commissioning services, and the boiler is now running smoothly and providing a reliable steam source to help NARL keep Newfoundland warm and running for many years to come.



#### Customer Profile

- Petroleum Refinery
- Located in Newfoundland and Labrador, Canada
- Total capacity: 130,000 bpd
- Refines a variety of crude sources

#### Supplied Equipment

- New, in stock 110,000 lb/hr Babcock & Wilcox 750 psig design / 750F superheat package watertube boiler
- EconoStak economizer

**EconoStak**   
Energy Saving Solutions

