



O&M Services/Turnkey Installation

Customer: Detroit Diesel

Location: Detroit, MI

Scope of Work: Armstrong International is responsible for the operation and maintenance of the steam generation assets. Armstrong's site supervisor will be responsible for management of six on-site operators, providing energy management expertise, and developing cost reduction opportunities.



The peak steaming capabilities are 130,000 pph.

Upgrade Projects: Pursuant to its responsibilities, Armstrong provided the following upgrade projects:

- Blowdown heat recovery installation
- Surveyed, databased, repaired, and replaced the steam trap population
- Completed insulation upgrade installation
- Installed a HVAC system demand control system
- Upgraded air handling unit controls system
- Reduced overall steam demand allowing shutdown of a boiler
- Reduced required steam pressure
- Upgraded cooling water system controls
- Optimized boiler combustion
- Automated chilled water plant

Contract: Total value of this agreement is \$3,800,000.

Terms: Three-year operations and maintenance agreement began in September 2003. Contract was extended through 2011 from 2003 start date.

Benefits: Armstrong provided on-site expertise that has lowered the site's operating costs, significantly reduced energy usage, developed appropriate back-up and emergency processes, and improved the knowledge base and morale of site operators.

