



LIPTEN™

A Quarterly report from the "Hands On" EPC Energy Solutions Company

advantage 2nd Quarter, 2012

The Importance of Proper Steam Pipe Sizing

Proper sizing of steam piping requires balancing many design considerations having significant implications.

Oversized steam pipe implications:

- More heat loss. This means lower fuel efficiency and more operating costs.
- A greater volume of condensate will be formed due to the greater heat loss. This means that either more steam trapping is required or wet steam is delivered to the point of use.
- Pipes, valves, fittings, etc. will be more expensive than necessary.
- Higher installation costs will be incurred including additional labor, supports, insulation, etc.

Undersized steam pipe implications:

- A lower, and possibly insufficient, pressure may be available at the point of use. This may hinder equipment performance.
- Potential steam starvation at the point of use.
- Greater risk of erosion, waterhammer and noise due to the inherent increase in steam velocity.

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Lipten Company is an Engineering, Procurement and Construction (EPC) firm that specializes in Central Energy Plant (CEP) General Contracting. Lipten also has a controls group that provides traditional and custom control solutions.

We provide steam generation, power generation, chilled water systems, compressed air systems, water treatment systems, controls and related Energy Center equipment and services. Our level of support can vary from an advisory role to complete turn-key facility construction. Services include: design, engineering, drafting (CAD), equipment specifications, procurement, installation, construction management, site audits, start-up, operator training and maintenance.



HISTORIC QUOTES

"If you can't explain it simply, you don't understand it well enough."

-Albert Einstein

"A successful man is one who can lay a firm foundation with the bricks others have thrown at him."

-David Brinkley

LIPTEN CONTROLS CORNER

User-Friendly Human Machine Interface



Dan Tavernit,
Controls Manager

Today's control systems rely on Human Machine Interfaces (HMI's) to provide plant operators with critical operational data and a single location for accessing vital control functions. User friendly, easy to understand HMI screens and controls can influence how well the plant is run. Lack of information, or screens that are difficult to understand, can result in poor operational efficiency, excessive wear and tear, and in extreme cases, failure to see a potentially dangerous problem.

Before designing any screen, not only is it important to keep in mind how the Operator will use it, but also keep in mind how it will be viewed. Understanding how the Operator's eyes will scan the screen, view different color schemes, perceive control buttons and indicators, and interpret messaging is just as important as understanding how the process is to be controlled.

Lipten controls solutions combine years of process knowledge experience, with the latest HMI programming techniques. Because every facility is different, Lipten software engineers work directly with the client to ensure designs unique to that facility are incorporated and easy to understand. After the project is complete, the client is provided with precise training and documentation tailored specifically to the application.

Experience, know-how and flexibility. Three ways in which Lipten sets the standard for control system HMI's. Contact Lipten today to speak with one of our experienced software engineers, and learn how we can help maximize your systems' safety, reliability and efficiency via the HMI.

Steamin' Hot NEWS

Current Lipten Project Highlights:

- 63 MW cogeneration system upgrades at a steel manufacturing facility in Indiana
- 2.5 MW cogeneration facility at a wastewater treatment facility near Cleveland, Ohio
- New Energy Center for a food manufacturing company in Chicago, IL
- Steam plant replacement at the Detroit Metropolitan Airport (DTW)
- Engineering, equipment and startup of a new \$44 Million energy center

Lipten Spotlight On . . .

Tom Burkhart P.E. Electrical Engineer



Tom Burkhart P.E.
Electrical Engineer

Tom Burkhart is a talented electrical engineer and project supervisor with over 30 years of experience. Tom holds a B.S. degree in electrical engineering from the University of Pittsburgh with postgraduate studies in Business Administration at the University of Maryland and Law at the University of Tulsa. His experience and skills are a vital part of Lipten project success. Tom's enthusiasm for teaching and sharing knowledge with less experienced employees is a strength for Lipten and is greatly appreciated. Tom has an energy level and commitment to his work that would compete with the best employees in any organization. Tom credits his time as a United States Marine Corps officer with developing his exceptional capacity for innovation and resourcefulness in solving diverse challenges. As a former Naval Aviator, Tom enjoys piloting the family's Cessna twin airplane. Tom is also an active and vocal participant in local government having been a Grosse Ile Township Airport Commissioner and a frequent candidate for office.

Tom and his wife, Betty, have a uniquely patriotic family. Dr. Betty Burkhart DDS is one of few Metro Detroit dentists who provides oral health care for US military and their dependents under the United States Department of Defense healthcare program. Their three daughters served as officers in the Air Force, Marines and Navy after graduating from college and are married to military veterans.