



# LIPTEN™

## ENERGY SOLUTIONS

*the LIPTEN™ advantage*

First Quarter, 2013 Newsletter

### HISTORIC QUOTES:

"Even if you are on the right track, you'll get run over if you just sit there."

-Will Rogers

"A man who trusts nobody is apt to be the kind of man nobody trusts."

-Harold MacMillan

"All things are difficult before they are easy."

-Thomas Fuller

### Steamin' Hot NEWS

-General Motors (NYSE: GM) is upgrading the powerplant in their Wentzville, MS assembly facility. Lipten is converting two coal boilers to fire natural gas resulting in reduced emissions and lower operating costs.

-Marketing director, Ron Johnston, has accepted the position of "Vice President of Private Sector" for the Michigan Economic Council's Energy Services Coalition. Congrats Ron!

-Happy New Year! Lipten is ready for a busy year in 2013.

-Lipten's newest office is up and running. The office is located across the street from the Lipten headquarters just outside of Detroit, MI.

-Lipten is listed as a top firm in the January 2013 "Crains Business" publication

### Energy Savings Fly High at Detroit Metropolitan Airport (DTW)



Entering 2012 the Detroit Metropolitan Airport (DTW) North Central Utility Plant consisted of four 1970's vintage boilers for a total steam capacity of 160,000 lbs/hr. The peak demand was only 45,000 lbs/hr in 2011. The minimum steam demand in Summer 2011 was less than 4,000 lbs/hr; (nearly impossible for the 40,000 lbs/hr boilers to match) resulting in the generation of unneeded steam which was vented. Further, the boilers were suffering from tube leaks and equipment component failures. Two of the boilers were decommissioned and used for spare parts to support the other two boilers. It was becoming increasingly difficult to find support services and replacement equipment for the failing, inefficient boilers.

Lipten and our project partners are installing four new high efficiency steam boilers. These boilers have a "turndown" ability that allows them to match the low summer steam load which eliminates the need to generate excess steam and vent it. Each boiler is fitted with a feedwater economizer which transfers heat from the flue gas to the feedwater thus reducing the amount of fuel needed to heat the water to steam.

The project is expected to yield considerable energy savings for the airport primarily due to the provision of boilers sized to better match steam demand as well as more efficient heat exchange and fuel-air ratio control. Also, the systems' safety and reliability will be improved with the replacement of older, obsolete equipment. Further, new low emission boiler technology will result in lower emissions. Total cost savings are expected to be in excess of \$600,000 per year.

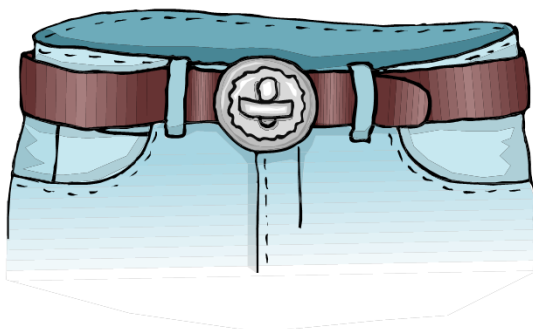
### Detroit Metropolitan Project Summary:

- With the increase in efficiency of steam point-of-use equipment over the previous decades, central utility plant steam demands are often significantly reduced. Installing smaller boilers can save money by reducing excess steam generation and venting.
- Old boilers accumulate scale, degrade and can leak, which inhibits their ability to transfer BTU's from fuel to water, thus producing steam. Simply installing similar new boilers would restore the power plant to higher original efficiency levels. Additional fuel savings are gained from new boiler designs and controls.
- Currently, boiler technology can achieve 9 ppm NOx compared with greater than 100 ppm NOx typical for 1970's boiler equipment.
- Oxygen Trim is a great way to increase boiler efficiency and safety.
- Replacing old deaerators and condensate systems with properly sized equipment can reduce parasitic loads thus reducing fuel use through lower steam generation requirements and reducing electrical costs based upon properly sized motor loads.



DILBERT © (2011) Scott Adams. Used By permission of UNIVERSAL UCLICK. All rights reserved.

## Charity "Blue Jean Fridays"



Lipten would like to share a recently established charity function in place at our offices. While many office dress codes require business casual attire, an exception can certainly be allowed to support charity organizations. On Fridays Lipten staff can wear blue jeans if they make a \$5 donation.

All money donated in October and November went to the Shades of Pink Foundation, which provides financial assistance to women with breast cancer.

<http://www.shadesofpinkfoundation.org>.

All donations for December went to the Brain Injury Association to benefit a "wounded warrior" and his family.

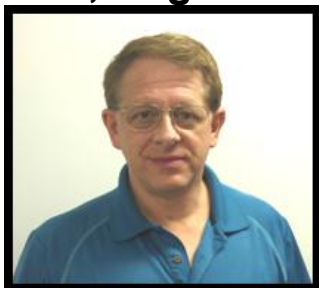
[www.biami.org](http://www.biami.org)

## Lipten Recommended Website:

For renewable energy industry news visit:

<http://www.renewablesbiz.com>

## Lipten Spotlight On ... Mike Huntress, MBA, Engineering Manager



Mike leads the Lipten Engineering Department consisting of mechanical, electrical, civil and structural engineers as well as Computer Aided Design (CAD) professionals. He is a senior engineer and manager with proven success in combining business and technical expertise to optimize processes, improve quality and reliability, control costs, reduce capital expenditures and maximize customer satisfaction for fortune 500 companies. He is a team leader adept at partnering staff capabilities with project requirements to ensure project efficiency and success. Mike effectively leads mission-critical projects providing significant value to Lipten customers. Mike has a Master of Business Administration and Bachelor of Science in Mechanical Engineering from the University of Michigan, Ann Arbor. He is a member of several professional organizations including: International Facility Management Association (IFMA), Society of Automotive Engineers (SAE) and the American Society of Mechanical Engineers (ASME).

Please [Click Here](#) to view this newsletter and more on the LIPTEN website.

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

Lipten provides steam generation, power generation, chilled water systems, compressed air systems, water treatment systems, controls and related Energy Center equipment and services. Lipten's 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.

