



## BALLARD ENGINEERING INC.

*Professional Design Engineers*  
3555 Electric Ave. • P. O. Box 5947 • Rockford, IL 61125  
(815)229-1800 Fax (815)229-3729  
www.ballardengineering.com  
e-mail: david@ballardcos.com



### Illinois Tool Works (ITW)

Illinois Tool Works has prepared for electric utility deregulation by installing a 5.75 MW power generation system in their suburban Glenview Plant. This system was designed and built by Ballard Engineering and consists of 5 gas fired Waukesha engines and the potential for heat recovery off the jacket water for hydronic space heating. Special sound attenuation measures were taken at this site due to the close proximity to a residential neighborhood. This system provides instantaneous 100% back up power.



COGENERATION  
POWER MANAGEMENT  
CONTROL MANAGEMENT



## ITW Power System Generating Benefits

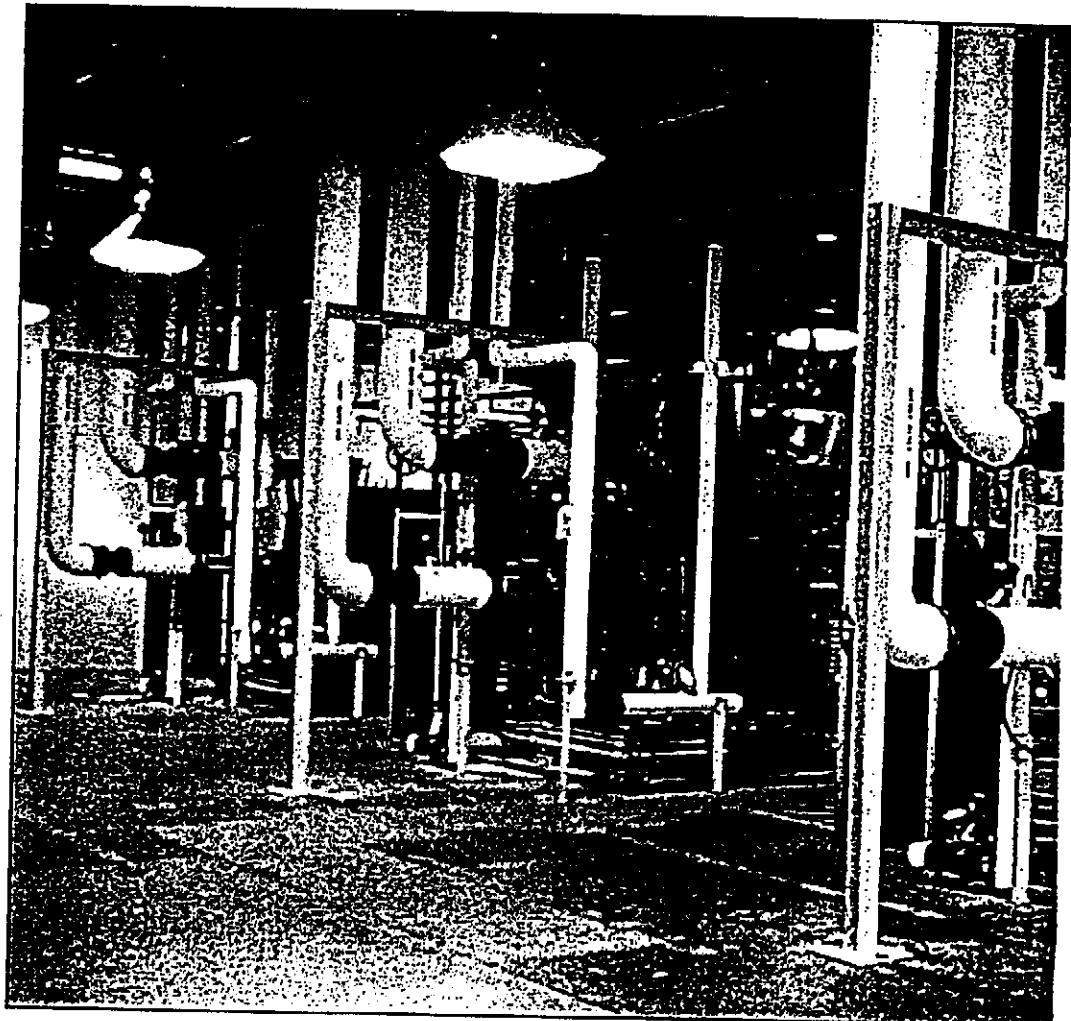
*by David Martindale, Ballard Engineering*

“ One year ago, ITW with Ballard Engineering installed a 4600 KW power generation system consisting of four Waukesha VHP 7100GSI engine generator sets rated at 1150KW each. ”

**P**ower generation provides many economic and technical benefits—just ask the Illinois Tool Works (ITW) of Glenview, Illinois. One year ago, ITW with Ballard Engineering installed a 4600 KW power generation system consisting of four Waukesha VHP 7100GSI engine generator sets rated at 1150KW each. This power

generation provides ITW's manufacturing complex and corporate headquarters with 99% of all its peak hour power.

This cogeneration system provides benefits in the form of reduced utility costs, automatic backup power and stand-alone operation, cleaner power, improved power factor, and reduced



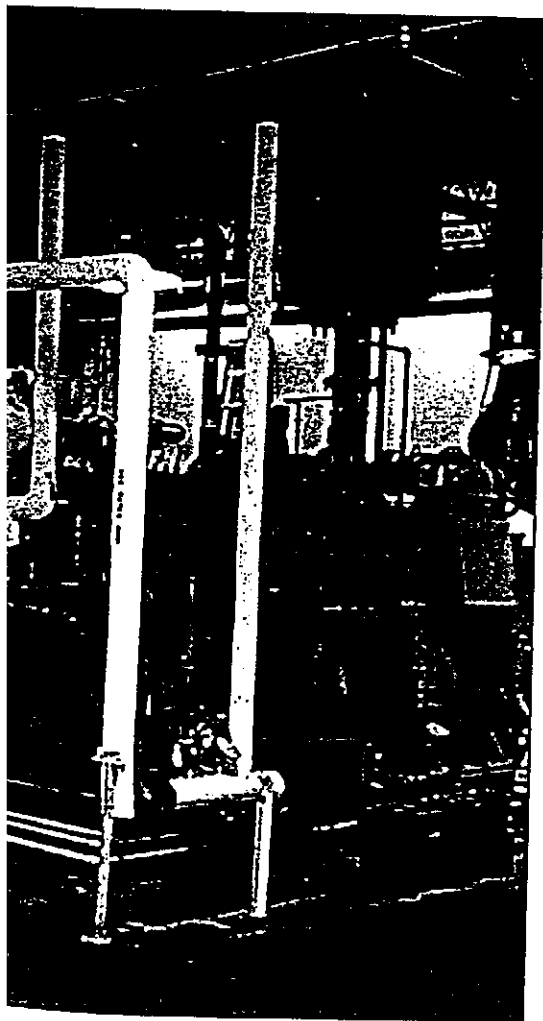
facility downtime due to utility interruptions. In the past, a utility fault or outage disrupted the entire facility resulting in a loss of production. Since utility faults occur numerous times per year, a significant loss of production was incurred due to downtime. The cost of this downtime is now avoided because when the utility has a

disturbance, the generator system separates ITW from the grid and powers the entire complex with stand-alone operation. When utility power is re-established, ITW re-synchronizes and connects to the utility seamlessly without interruption to production.

Other considerations were made with this project to provide additional benefits to ITW, as well as the surrounding community. As this system is built within an existing warehouse space and is located near a residential neighborhood, special measures were taken to eliminate any sound impact both within and external to the facility. Also, provisions to recover heat to a hot water heating loop are built into the piping system for future use.

The power generation system's first year of operation has lived up to everyone's expectations and has proved to ITW that power generation has many economic and technical benefits. ■

*Four Waukesha VHP7100GSI engine generator sets provide Illinois Tool Works manufacturing complex and corporate head quarters with 99% of all its peak hour power.*



"Assets," from page 1

departments—occasionally without a forwarding address. Or worse yet, it may have reached the end of its useful life and without so much as an approved scrap ticket joined the junk pile. In other instances, an asset may not have received an identifying asset tag when it was originally put in service, causing many hours to be spent trying to match it to the records.

Although the physical inventory involved a lot of work by the team itself and other employees in support roles, it was not without its benefits. By determining that an asset was no longer in our possession we were able to write it off and avoid paying property taxes and insurance premiums. The physical inventory also identified assets that were still here but were not being used, allowing for possible disposition and write-off of their value.

For the most part, any assets still on the books which were identified as gone or not in use were already fully depreciated and did not adversely impact the Division's return on investment. However, being part of the Halliburton family does create a slightly different twist when measuring the Division's performance. That twist comes in the form of CVA, or cash value added. In order to encourage divisions to optimize the use of their

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assets, Halliburton charges them a rental for their use. This "capital fee" is imposed on the divisions as a percentage of the average investment after adding back depreciation.

As a result of the physical inventory of fixed assets that was taken in 1999, and the subsequent removal of assets from the books, Waukesha will save capital charges amounting to the addition of \$250,000 to our CVA in 2000. As is often the case, we also learned a lot about our current procedures regarding the purchase and disposition of machinery and equipment. This will help us as we go forward to improve the process and realize the benefits of keeping our records accurate on a current basis. ■

### IN THE BLEACHERS

By Steve Moore



Accountants by day, pro wrestlers by night.

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WAUKESHA ENGINE DIVISION  
DRESSER EQUIPMENT GROUP, INC.  
1000 West St. Paul Avenue  
Waukesha, WI 53188-4999  
Phone: (262) 547-3311  
Employee Hotline: (262) 549-2794

Suggestions for future articles are welcome.  
Contact an Inspiration & Communication  
Team member:

Bill O'Connor, *President*  
Frank Trzebiatowski, *Bargaining Unit*  
Terry Hughes, *Bargaining Unit*  
Mike Schubert, *Bargaining Unit*  
Tom Kruziki, *Marketing*  
Dean Smith, *Human Resources*  
Diane Smith, *President's Office*  
Carey Peck, *Marketing Services*

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WAUKESHA ENGINE DIVISION  
DRESSER EQUIPMENT GROUP, INC.  
1000 West St. Paul Avenue  
Waukesha, WI 53188-4999