

New Technology Saves Time and Money at Ford

By Ellen Akins

DEARBORN, March 29, 2005 (FCN) -- Better air quality in the plants and less noise are just two of the benefits employees will realize as North American plants switch from combustion engine forklifts and tow motors to all electrically powered vehicles. Other advantages of the change include space savings in the plants and an estimated \$5 million savings to the company's bottom line each year said Roger Tenney, manager, Industrial Vehicle Strategy and Engineering.

"We've been working on trying to reduce the number of combustion engine vehicles in our plants for a number of years," said Tenney. "But we had to put a hold on the process until technology caught up with our needs."

For years, the vehicles used to move materials within the plants were either powered by propane or batteries. Those running on batteries were charged at central locations called "battery rooms" in each facility. When employees noticed the battery getting low on their vehicles, they would drive to the "battery rooms" for charging, often disrupting their work. They would have to physically replace the "dead" battery with a fully charged one or, in the most extreme cases, wait up to eight hours for the battery to be charged.

With new technology provided by PosiCharge®, the leading provider of fast charge battery systems, battery stations have been set up in natural work areas, eliminating the need for constant trips back and forth to a battery room. On lunch breaks or when workers have a few minutes of down time during their shift, they can drive a few feet to a battery station right in their immediate work cell and top off the charge of the battery. The results are a 75 percent reduction in the total charging time required during a typical day. Because the batteries no longer need to be exchanged, it also is possible to reduce the number of batteries purchased per vehicle.

"During a single shift, forklift and tow motor drivers were traveling 26 miles back and forth to the battery rooms. That non-value added work is eliminated with the fast charge battery systems," said Tenney.

Tenney said the schedule is to begin installing charging stations at key sites around each plant, and discontinue traditional battery rooms by the end



of summer in 2006.

"The Dearborn Truck Plant has 100 fast charge stations. A typical plant will have between 85 and 125 fast charge stations replacing the centralized battery rooms," said Tenney. "Supporting all the industrial vehicles in each plant in their natural work cells is a key benefit of this program."

There are other benefits to the fast-charge battery technology.

"The need for industrial truck batteries is also being significantly reduced which contributes to our environmental friendliness criteria," said Roman Krygier, group vice president, Global Manufacturing. "It used to take 2.5 batteries to do the job that one fast-charged battery can handle. This reflects a 60 percent battery reduction."

North American vehicle operations plants will switch from all combustion-engine forklifts to electric-run vehicles by year's end. All tow motor vehicles will be electrically run by the end of 2006. Tenney said there have been discussions about replicating the technology in Ford of Europe plants and facilities in Asia Pacific markets after the North America roll out is closer to completion.

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