

Self-Serve Takes on New Meaning: Materials at the Point-of-Use

By Teresa Hansen, Associate Editor

It's been happening in consumer markets for years: Companies have been increasing their efficiency by putting more capability into consumers' hands. Self-serve Laundromats, self-serve car washes and even self-serve checkout lines have increased the throughput of companies offering the self-serve model. All of these models reduce wait times and improve the consumer's experience.

When management at PPL Corp.'s Logistic Services organization (see editor's note) decided to apply the same thinking to the plant floor, they looked for a solution to help them take high-moving items out of the maintenance tool crib and securely distribute them at the point-of-use.

"Our goal was to reduce the wait time at issue windows and get materials closer to the actual work location," says John Novak, Logistic Services supervisor.

To help achieve this goal, PPL looked to WinWare and its CribMaster Inventory Management System. CribMaster is a set of solutions that manages indirect material in industrial environments. It consists of software, scanners, point-of-use dispensing systems and other devices to help companies operate leaner.

After researching various solutions, PPL decided to implement two types of point-of-use solutions at its Susquehanna and Montour power plants in 2004. In 2005, PPL expanded its CribMaster solutions by implementing point-of-use distribution stations consisting of helix-style vending units, step-drawer systems and electronic lockers in its Bloomsburg, Lancaster and Lehigh distribution centers operated by PPL Electric Utilities.

"We saw the point-of-use system in the power plants eliminate long lines of customers waiting for materials," Novak says. "We wanted to see how it would work in a few large distribution centers for our utility operations."

Extending the Main Toolroom

The distribution center cribs are manned areas during normal operating hours, but are unmanned during off hours. Accessing needed inventory items anytime they are needed is crucial, but had not been an easy process.

That changed with the installation of the CribMaster machines, which have enabled 24-hour access for employees and contractors who need consumable materials and tools. The stations hold such items as lenses, bits, grinders, batteries, safety glasses, welding gloves and hand tools so they're available when needed.

PPL uses the CribMaster point-of-use devices as an extension of the main toolroom. The point-of-use stations are located in areas where travel time to the toolroom is substantial. The stations typically hold high-volume items that used to be dispensed across the issue windows.

"We looked at issue history to determine which items had the most turns," Novak explains, "then added the nuisance-to-issue items at the window. Before we knew it, the machine was full."



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Point-of-use vending machines provide plant workers with 24-hour access to consumable materials and tools.

PPL employees and contractors scan their employee badge with a bar code scanner to gain access to the inventory. Once they have identified themselves, they see the inventory they are allowed to access in the station. Security permission lets management avoid issuing employees items they would not normally use.

After the employee selects the item from the touch screen and presses the issue button a drawer lights up, the locker opens or a helix spins-dispensing the proper inventory item. Real-time reporting is used for replenishment, usage information and inventory level in the stations. The system provides added security and better tracking than the manned distribution centers and it eliminates the need for individual-item bar coding.

"We knew that the single greatest impact we could have with this solution was the ability for people to help themselves," Novak says. "This would reduce the number of people waiting in line for those items."

For this to happen, the technology had to be consistent and allow for hundreds of employees and contractors to be easily trained. CribMaster was up to the task. That's because each device is controlled by the same software regardless of the dispensing device that's chosen. CribMaster software's interface consistency allows not only for flexible functionality, but also for an easy-to-learn inventory management system.

PPL employees and contractors adapted nicely to the system. "We've been able to shift resources from a manned crib to machine replenishments that allow our customers to help themselves to a product," Novak says.

Tracking Made Easy

Anyone can relocate items to toolboxes, drawer systems or bins next to the point of use. But that's just the first step. Gaining and maintaining control is the next. The real challenge is properly tracking and replenishing the needed items in these point-of-use locations.

Who is removing the items? Where are the items being used? What are the items being used for? These are all questions that need to be answered no matter where the inventory is located.

PPL understands the need for proper tracking and management reporting, and has set CribMaster to automatically export transaction reporting to be viewed on its intranet. All transactions are logged to an employee and responsibility center and reported accordingly. And, all Logistic Services team members are able to log into the PPL intranet and view reports on a regular basis.

John DeFluri, Logistic Services director, says, "In the future, CribMaster's tracking and reporting capabilities will give us much more management information, allowing us to plan our work and streamline our purchasing and replenishments, resulting in faster turnaround times."

As with any change in a manufacturing process, it was important for the employees to accept this process change. It's clear from talking to the folks at PPL that they understood the challenge. PPL properly trained and explained the new technology and benefits to users prior to implementing, reducing the stress of the process change.

Employees naturally want to do their job with as little hassle as possible, and as PPL employees have learned, having the items at the point-of-use makes them more efficient. That's because they can always rely on inventory being available.

"The proof is in the transactions," Novak says. "Initially, the guys who replenish the machines couldn't keep them filled fast enough during peak times. Workers are now using these machines heavily in each plant location. This means fewer people at the window, which reduces wait time."

Just as companies in consumer markets gained efficiencies by putting more capability into consumers' hands, PPL recognized the positive impact of putting more capability into workers' hands. Not only has the CribMaster solution made items available to workers 24 hours a day, it's also put the items closer to where the workers use them and eliminated long wait times.

What's more, PPL management was able to reallocate resources, benefiting from having actual usage figures and automatic reporting available on the company intranet. Indeed, practically everyone benefits from knowing that these items will be available when they're needed.

In an industrial lesson learned from the consumer market, point-of-use solutions have improved workers' experiences-and have made management's life much easier as well.

Editor's note

Logistic Services is part of the Supply Chain organization in PPL Corp.'s Financial Department. Among its services are warehouse operations, inventory management, materials receipt and staging, and mail, tools, material and equipment delivery throughout PPL's domestic operations.

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