

Managing hazardous waste containers, such as rolloffs, intermodals, vacuum boxes, tankers, spillguards and other containers on large industrial, chemical or refinery sites is a persistent and often expensive problem. It's one of those peripheral functions that's not part of the core business but has the potential to directly affect, even shut down, operations if a suitable container is not available. Management generally addresses the inventory issue by overstocking containers. However, since container equipment is typically leased and costs add up for every day that containers are on site, whether or not in use, the net result is that companies are essentially throwing money at the problem.

For hazardous waste, the process is compounded by the fact that companies are responsible for tracking and reporting the final disposition of the waste. In addition, lease charges continue to accrue until the company's waste is disposed of from the container even though it is already physically removed from the site.

The costs are hard to manage since, although container management leasing contracts are often centrally negotiated and purchased, actual container requisitioning is left up to operational managers. The result is that each manager understandably maintains a cushion of extra units in a lay down area that are collecting rent. Think about it, if an operation requires only a single container, it may make sense to have an extra one on hand – a 100% overage in rental costs. But, if an entire site's needs are aggregated, a hundred-unit inventory may require just a few extra containers – a much smaller percentage with resultant cost savings. Yet, we typically see overage stock of 30% to 40% on industrial sites.

So, the challenge is to come up with a system that solves each operational manager's needs and drives down overall costs for the facility and, by extension, the company. In order to accomplish this, container management should be broken out as a separate function that is site-wide and cross-functional.

This approach requires that managers give up some of their control, along with the burden of administering the container inventory, in exchange for cost savings. The new container management process must be as effective as the previous process and essentially transparent to the operating units, while providing containers when and where they are needed.

## Dedicating resources improves management

When companies reach a threshold of managing around 20 container movements per day, either within the site or on/off the site, they should designate a full-time Facility Container Coordinator. This person's job is to keep track of the status of all containers on the site and, as importantly, offsite while they continue under contract to the company.

Many companies outsource this function to a service provider. This has the advantage of putting a third party in a position to work with the various business units. It creates a measurable functional operation, and gives the company the opportunity to bring in a vendor that has the core competency, technology and business focus to manage the task day-in and day-out.

Here's how an effective container management system works:

Container management generally starts with an investment in the technology and management practices necessary to identify and track containers. This includes on-site movements through proper disposal of hazardous waste.

A barcode system tied to a specialized database program is the most efficient way to determine where containers are distributed across large sites. This requires reconciling the

perceived inventory with the actual inventory (rarely the same) and then creating a barcode database and affixing barcodes to the actual containers. The inventory reconciliation needs to take place at each area of a large site. Homegrown spreadsheets and databases can work, but it is often more efficient to go with off-the-shelf applications or service provider solutions.

For industrial chemical and refinery sites that use leased units, 4X6-inch vinyl barcode sheets placed on all four sides of containers in magnetic-backed clear plastic pouches have proven to be effective. The barcode assigns a unique identifier to each container and the system references the number and other identifying information that is painted on the container by the owner. The barcode pouches are removed from the leased containers when they leave the site

The Facility Container Coordinator reads the barcodes using a standard handheld scanner whenever a container is moved or its status changes. The scanner unit automatically time stamps the transaction and the Coordinator keys in other information, such as location. The data is uploaded to the container management system that supports several database and reporting functions.

Regardless of whether or not barcodes are used (highly recommended) when transporting hazardous chemical waste, the following container information should be tracked:

Arrival date
Unit cost center
Specific location
Container number
Container type
Container condition (inbound and outbound)
Purchase order
Movements within the site
Cost center changes (if units are transferred)
Departure date (carrier, destination, etc.)
Offsite movement/progress
Date of removal from inventory

## Onsite logistics management

Onsite administration is a typical cross-functional logistics management process with much of the efficiency and savings coming from the Facility Container Coordinator's role as the administrator for all container orders and broker for all movements on and off the site, as well as between operating units (cost centers).

The Coordinator processes requests from all operational departments, finds available empty containers on site, orders containers from approved vendors when necessary, checks them in and tracks them. By controlling and managing the inventory, the Coordinator is able to use idle containers that are already on site to meet all operating departments' needs, reducing rental inventory and costs, saving time and transportation.

Ideally, the Facility Container Coordinator transparently handles routine day-in, day-out movements. The function becomes even more critical during facility "turn-arounds" when there is an increased volume of equipment movements and an absolute requirement to have resources available. Involving the Coordinator in the planning facilitates the process and returns substantial savings.

## Offsite control saves money

On-site management delivers only part of the solution. Significant additional savings can be gained by tracking containers when they leave the site. Offsite container management is typically weak or non-existent, which results in unsupported invoices that are paid without challenge

because there is no documentation to refute them.

Managers have the right and the responsibility to track containers as long as they are billed to the company.

Accountability should be enforced.

This requires that the Coordinator determines the location and status of every container that leaves the site but is still under lease. The Coordinator is responsible for demanding documentation on any delays, such as cleaning or additional transfers, in order to determine when the container will be available for use again or will be taken off lease. A good automated management system produces daily offsite status and aging reports with follow-up reminders to help the Coordinator keep track and routinely follow up.

By applying the technology to generate reminders, the burden is taken off the Coordinator while putting the vendors on notice that they will be held accountable. When the Coordinator contacts the responsible vendor to verify status, he will have supporting data in-hand. It's remarkable the savings that can be realized just by tracking containers and requesting documentation.

The last step, the one that ties it all together and delivers the savings, is reconciling all invoices to actual usage. The vendors' invoices arrive as a list of container numbers, dates and services that are virtually impossible to reconcile manually. Using the tracking database, the invoice can be compared to actual on-site and offsite usage records in order to apply the proper rates and dates. The reviewed and approved invoices are forwarded to accounts payable, perhaps as a direct link to the enterprise system, while disputed invoices are held for reconciliation.

This will be a painful process, especially at the beginning, as container vendors adjust to the idea that the company has the information to evaluate and challenge their invoices. Over time, however, the process becomes routine while the savings continue.

The net result is that operating units benefit from a reduction in excess lay down inventory, reduced rental and transportation costs, and increased efficiency. Companies benefit from aggregated savings that can add up to millions of dollars

It all starts with treating container management as a site-level issue that deserves a cross-functional solution. By assigning the correct resources, creating a system that automates container tracking and status throughout the process, developing and applying the correct technology, appointing either an in-house or outsourced Facility Container Coordinator, and controlling the entire leased container lifecycle, proactive container management delivers substantial efficiency and savings across the board.

Joseph McNally, with more than 25 years in the

Joseph McNally, with more than 25 years in the Environmental Services Industry, is Vice President, Container Management at Clean Harbors where he manages the company's 8000 container fleet program. He previously managed Management Information Systems (MIS) overseeing development of the company's Web-based Container Management System. For additional information call Joe at 781-792-5750, email <a href="McNallyJ@cleanharbors.com">McNallyJ@cleanharbors.com</a> or visit www.cleanharbors.com.

Reprinted from April 2009 issue of:

