Murphy Warehouse Company

Green Initiatives

Increasingly, Wall Street and investors see "green" practices as a direct reflection of good management practices. Thus, energy and green sustainability are becoming much more important in warehouse operations. Fortune 500 firms and Wall Street Real Estate Investment Trusts are starting to require Leadership in Energy and Environmental Design (LEED) Certification for new facilities. Additional national and local environmental regulations and EPA mandates are tipping the economic model in favor of more engagement in environmentally sound business practices.

It's no small feat for a logistics business to think green. But for Murphy Warehouse Company, operating as green as possible goes beyond these issues. It's not only the right thing to do; it also makes good business sense.

Stormwater Programs

Most Murphy logistics sites in the Twin Cities are developed with warehouses, dock bays, yard space – surfaces that are impervious to water. For example, the Murphy headquarters campus in Minneapolis spans 22 acres; 95 percent is developed and impervious due to its age (1904) and development that occurred prior to Murphy's ownership.

This means stormwater runs off to municipal stormwater systems, resulting in $68,000 in annual stormwater fees. And while current EPA mandates require cities to meet stringent stormwater regulations, the Federal Government did not fund the new standards. As a result, more and more cities are assessing stormwater fees on businesses.

This summer, Murphy invested $275,000 to develop a stormwater system at its Minneapolis site that collects and treats stormwater to improve the water quality as it re-enters the ecosystem and the city network, reduce the volume through retention and infiltration devices such as rain gardens and basins, and reduce the effect of storm surges that may cause overflow problems for the city system after heavy rains.

From a dollars and cents perspective, the new system also should grant Murphy a full credit from the city on stormwater quality costs and 56 percent credit on stormwater quantity. This will reduce Murphy's current stormwater fee to $14,960.

Native Prairies and Tree Plantings

Murphy has established additional, unique systems to improve stormwater management at its other logistics campuses. Drawing upon CEO Richard Murphy's training as a landscape architect, the company has planted more than 732 trees on its four owned warehouse sites. Trees are highly valued today for biodiversity, urban heat island reduction, bird habitat and stormwater retention. Murphy also has planted 22 acres of native prairies around two

Murphy-owned logistics campuses. The prairies are now some 13 years old, and contain more than 60 native species of plants.

The company's prairies reduce the need for wasteful sprinkler systems, runoff, and because of the deep root structure of native plants, provide excellent water infiltration to replenish the groundwater. Not only that, but they are beautiful as well: Murphy's prairies have been cited by the Metropolitan Design Center as good examples of industrial design.

The key to the company's environmental success is maintenance. Trees are fertilized every other year, and roots are inspected and treated as required for root girdling – a serious and deadly condition caused by planting trees too deep or not lowering nursery stock soil heights upon final planting, resulting in roots strangling an otherwise healthy tree. Prairies are all burned every third year to stimulate the regenerative effect of fires that occur naturally from lightning storms.

Urban Infill and Brownfield Redevelopment

In 1999 Murphy opened a new 406,000 square-foot distribution center on an urban infill site just north of Interstate-694. Previously, the site had been an EPA Superfund site with a negative net worth of $400,000. After cleanup and EPA delisting, the facility at 7033 Central Ave. NE in Fridley today pays back to the community more than $500,000 in real estate taxes per year. The Murphy site also includes 11 acres of prairie and a beautiful pond frequented by waterfowl, birds, rabbits, deer and fox.

Forklift Fleet Improvements

For a company that operates 150 forklifts in 12 facilities to move freight indoors, fuel-efficient vehicles that give off fewer emissions are both an environmental and health concern.

Propane-fueled vehicles account for 70% of Murphy's forklift fleet; 30% are electric. Since 2003, Murphy has invested in new fuel-reader technology for its propane forklift fleet that allows the vehicles to burn cleaner and be more fuel-efficient.

And while fuel savings are an important factor in this effort, Murphy gained an even greater benefit inside its facilities. With several vehicles emitting exhaust, Murphy perpetually monitors indoor air quality to protect employees. Since upgrading the forklift fleet, indoor air emissions have been cut in half – well-below OSHA standards.

Dock Blankets, Re-Roofing and Heating Efficiency

Warehouse docks are fitted with metal plates to withstand the daily wear-and-tear of loading and unloading freight. And while docks are outfitted with doors and insulating bristles to keep out the elements, the metal dock plates draw in cold air during winter months much like ice cubes cool liquids. To keep the dock areas of Murphy's facilities more comfortable and reduce heat energy consumption, the company uses a very simple solution: custom-sewn, quilted moving blankets.

Since 2004, Murphy has used the blankets to cover the metal dock plates when docks are not in use. While it does require additional steps for Murphy staff keep the dock blankets in place, it is not an uncommon sight to see a forklift driver stop what they are doing and make sure the blanket is where it should be. And simple solutions tend to work the best: the areas around the docks are 5-10 degrees warmer when the blankets are in place.

Murphy also has re-roofed many of its older buildings – yielding energy savings in both winter and summer months. When coupled with the docking blankets, the new roofs have helped to significantly reduce energy consumption. While gas prices have risen as much as five-fold since 1994, Murphy's costs for the Minneapolis facility have only doubled, thanks to the dock blankets, new roof and a new dual-boiler system.

Prior to adding additional roof insulation and dock blankets the new energy efficient dual-boiler system even had trouble keeping up with demand in the coldest periods. Now only during the coldest stretch of winter weather, typically minus 25 degrees and below, does Murphy need to fire the second boiler. In fact, during the 2007-2008 season, both new boilers ran only once. It should be noted that Murphy has run its warehouses at 55 degrees during the winter for over 35 years.

Prior to adding additional roof insulation and dock blankets the old, less efficient boilers both ran constantly, and even then had trouble keeping up with demand in the coldest periods. It should be noted that Murphy has run its warehouses at 55 degrees during the winter for over 35 years.

Murphy continues to look into the efficiency of its heating system by evaluating a new computer system for its boiler that would further increase efficiency by 20 percent. It is even exploring the heat-pump concept which utilizes the constant temperature of the ground below frost levels as a heating and cooling source.

Lighting

For many businesses, the first step to going green is to upgrade lighting systems to be more energy efficient. For Murphy, continually improving lighting systems throughout its facilities has been a priority.

The company has adopted new lighting systems over the years, most recently upgrading to new T8 florescent lighting in many of its facilities. While it may be an obvious solution to upgrade lighting in older buildings, Murphy has also changed the lighting system in buildings erected within the last 10 years – most of which had state-of-the-art systems when they were built.

In these situations, the investment in a new lighting system paid for itself within two years. One Murphy facility, built in 1999, cut its lighting bill from $1,800 to $1,000 with its upgraded lighting system.

About Murphy Warehouse Company
Murphy Warehouse Company is a family-owned, full-service supply chain Logistics Company based in Minneapolis, Minn. Founded in 1904 Murphy is one of the Upper Midwest's largest asset-based logistics companies and serves more than 250 companies ranging from Fortune 500 to start-up companies. Murphy works with their clients as strategic partners to create and maximize logistics solutions. The company provides a wide range of services, including warehousing, distribution, transportation, cross-docking, fulfillment and administrative, as well as international logistics through their Midwest International Logistics Center. For more information, visit www.murphywarehouse.com.

July 2008