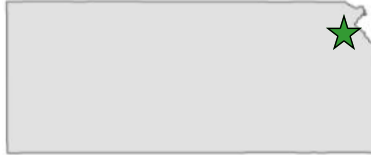


2011 Case Study

Associated Purchasing Services

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Company background

Associated Purchasing Services (APS) is a group purchasing organization affiliated with the Missouri Hospital Association and the Kansas Hospital Association. This company increases contracting efficiency and reduces overhead costs for members by coordinating the research and development of product and service contracts. Based on the purchasing power of their members, they negotiate discounts and pass along the savings. This purchasing power also allows them to offer and promote environmentally preferred products (EPP) to their clients. Primary objectives for the internship were to research, identify, and promote use of priority EPP.

Project background

The APS internship can be divided into two parts. During the first part, the intern gathered information from various sources that offered environmentally preferred products. Next he prioritized the products based on their potential use in hospitals and opportunities to significantly reduce hospital waste emissions. Simultaneously, during the data collection process, the intern took the necessary steps to gain the interest of hospitals who are contracted with APS. For the second part of the internship, the intern visited hospitals that had expressed an interest in expanding their use of EEP and reducing waste. A tour of the facility and on-site data gathering was performed at three Kansas hospitals including Truman Medical Center, Newton Medical Center, and Kingman Community Hospital.

The intern also drafted a *Best Practice Guide*, which APS hopes to finalize and publish as a tool for member hospitals interested in expanding their EPP programs.

Incentives to change

Medical facilities are responsible for the welfare and comfort of their patients. These services, however,

generate large amounts of waste, which eventually finds its way into the waste stream. Hospitals realize they can simultaneously reduce their waste emissions and cut down on waste disposal costs by purchasing products and services that have a reduced impact on the environment. In addition to waste minimizations, hospitals also seek to reduce energy use, especially through lighting. Taking full advantage of the best technology allows hospitals to maintain the quality and the color temperature of their lighting, while reducing their dependence on electricity. By implementing environmentally preferred purchasing and greening their supply chain, APS can help hospitals reduce waste at the source, the best strategy for pollution prevention.

Projects reviewed for E2/P2 potential

1. Reusable containers and blue wrap reduction
Blue wrap is a single-use disposable product comprised of polypropylene, an inert polymer derived from petrochemicals.¹ It is used for wrapping surgical instruments for sterilization. Studies indicate that about 20% of the waste that goes into red bags is blue wrap, much of which is not contaminated and could either be reused, recycled, or eliminated.² Blue wrap can only be used once for sterilization and hospitals expend a considerable amount of money each year purchasing blue wrap that ends up in the trash after its single use. Hospitals can reduce toxicity, quantity, and costs of this waste stream by using reusable sterilization totes.

One of the APS vendors offers these sterilization totes and several members already use them, but not to the full source-reduction potential. The intern worked on site with one facility that still used blue wrap for 30% of its needs, using the reusable containers for the other 70% of its needs. The intern recommended the facility move to 100% reusable containers, eliminating blue wrap. By implementing this recommendation, the facility could potentially save \$2,052 and prevent 2,496 pounds of waste

annually. The intern recommended that if the facility could not eliminate the blue wrap at 100% then it could donate the blue wrap to a local animal shelter for use as animal-unit liners.

2. Lighting

The intern was able to visit two different facilities that had opportunities for re-lamping their facilities.

The first re-lamping analysis was drafted for Newton Medical Center (NMC). Because of time constraints, the intern was not able to manually count the total amount of light bulbs that NMC uses. However, its purchasing invoice revealed that in the last year it had purchased 600, 32-watt T8 light bulbs, which consume 167,371 kWh annually, costing \$13,871 per year. The intern recommended that as the current light bulbs burn out, the facility should replace them with more efficient 25-watt, T8 light bulbs manufactured by Phillips Lighting. This retrofit would reduce energy use by 36,691 kWh per year, saving \$2,230 the first year and \$3,034 in subsequent years.

The second re-lamping analysis was completed for Kingman Community Hospital (KCH). Because of time constraints, the intern was not able to manually count the total amount of light bulbs that KCH uses. However, its purchasing invoice revealed that in the last year it had purchased 525, 32-watt T8 light bulbs, which consumed 146,764 kWh annually, costing \$12,137 per year. The intern suggested that as the current light bulbs burn out, the facility should replace

them with more efficient 25-watt, T8 light bulbs manufactured by Phillips Lighting. This retrofit would reduce energy use by 16,052 kWh per year, saving \$623 the first year and \$1,328 in subsequent years until the light bulbs expire.

3. Sharps containers

The intern also researched potential use of reusable and recyclable sharps containers. Due to limited product availability, the project was not expanded but may be an area for future implementation.

¹ <http://www.mntap.umn.edu/health/resources/150.BlueWrap.html>

² <http://www.calrecycle.ca.gov/Publications/Plastics/2009004.pdf>

Summary of 2011 E2/P2 intern recommendations for Newton Medical Center and Kingman Hospital

Project description	Annual estimated environmental impact	Annual estimated cost savings	Status
Blue wrap replacement	2,496 lbs of waste	\$2,052	Recommended
Blue wrap donation	Not available	Not available	Recommended
Relamping analysis	52,743 kWh	\$4,362	Recommended
Reusable Sharp Containers	—	—	Needs Further Research
Total savings	52,743 kWh, 2,496 lbs of waste	\$6,414	
GHG reductions	47.5 metric tons CO₂e		