

# Congregation of St. Joseph - Wichita Center

## Recycling

The Congregation of St. Joseph - Wichita Center is awarded for its efforts in recycling.

In the 1990s, two of the sisters began to seek a source for recycling the tin, aluminum, glass and cardboard discarded by the kitchen staff. They believed that it was better to collect and recycle the material than have it dumped in the trash and eventually deposited in the city landfill. The sisters faced several challenges: convincing the other sisters and the employees of the necessity of recycling and developing processes for the collection of recyclable materials.

The goal is to recycle everything possible rather than discard. As sisters, administrators, department directors and employees grew in awareness of the necessity of recycling, a process was developed for collecting recyclable items on the property:

- boxes for recycling office paper were placed in each office;
- large plastic recycle tubs were placed in each residential area of the Center for the collection of paper;
- boxes were set up in the kitchen for collection of cans, plastic jugs, aluminum and glass;
- two large dumpsters were installed for the collection of cardboard and three 1 cubic yard carts for the collection of office paper and newspapers.

The organization contracts with International Paper for weekly emptying of the dumpsters filled with cardboard and carts containing paper. Two volunteers take a pickup truck and a flatbed trailer filled with the other recyclables to a local dealer and to a local recycling center on a monthly basis.

As the recycling efforts have intensified, the organization has adopted a no or low use policy regarding Styrofoam cups and plates and plastic eating utensils. It purchases napkins made of recycled material and, when needed, uses biodegradable paper cups. The sisters' commitment to recycling has been an example to others. The employees know that recycling is an expectation, not an option at the Wichita Center. Some have commented that because they are expected to recycle these materials at work, they have also begun recycling these items at home.

In addition to this well-established recycling program, the Wichita Center has recently implemented several energy efficiency programs including lighting, programmable thermostats, use of Energy Star rated appliances, Computer Power Management, and hot water reuse. It is also minimizing water use through xeriscaping. For the Sisters of St. Joseph, recycling is more than a project, it is a way of life.

For more information on this project, contact:

Sister Pam Young, Administrator  
Congregation of St. Joseph-Wichita Center  
3700 E. Lincoln  
Wichita, KS 67218  
(316) 689-4005  
pyoung@csjoseph.org



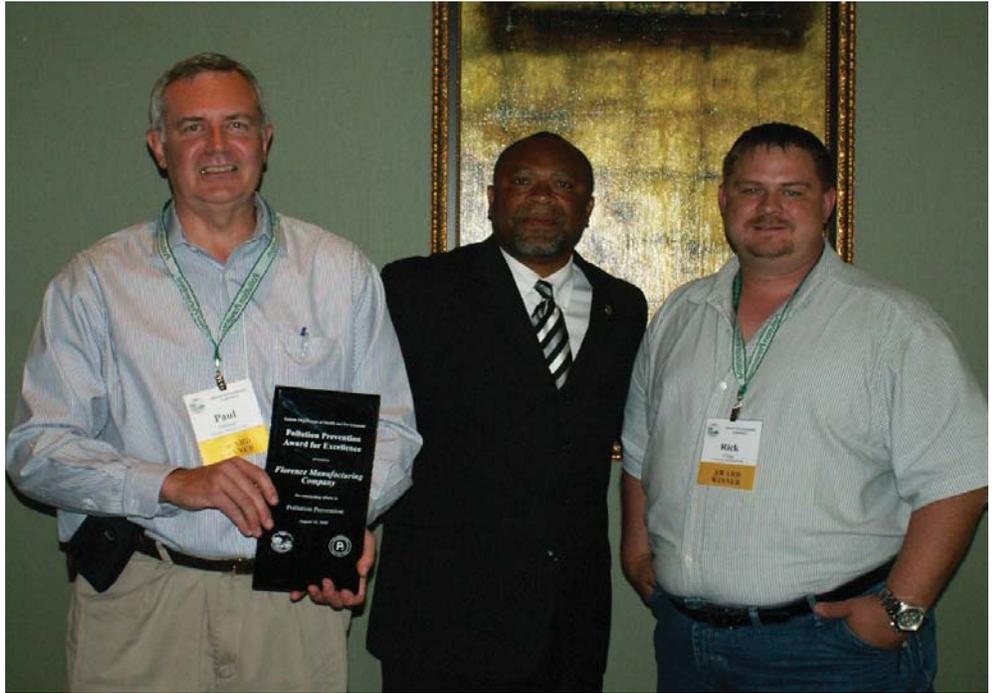
*Sister Mary Ellen Loch, KDHE Secretary Rod Bremby, and Sister Ann Catherine Burger*

# Florence Manufacturing Company

## Technology Innovation

Florence Manufacturing Company, the nation’s leading manufacturer of superior quality mailboxes and accessories for centralized distribution and collection of mail and packages, is awarded for its efforts in technology innovation.

As part of an effort to become a more “green” company, Florence Manufacturing worked closely with its powder coating pretreatment chemical supplier (Chemetall-Oakite) on changing its chemical system to 1) reduce chemical consumption, 2) lower washer operating temperatures to reduce energy usage, and 3) utilize a final-stage sealant that would eliminate a biocide / bacteria problem, enhancing worker health and safety.



*Paul Dittmar, KDHE Secretary Rod Bremby, and Rick Clagg*

To convert to the advanced Chemetall-Oakite technology, the company needed to obtain approval from one of its major clients, the United States Postal Service (USPS). To do this, it conducted a full-scale plant trial, in which it coated test panels pretreated in the wash system using the new chemicals. The test panels, which were submitted to an independent laboratory for testing, passed all USPS specifications. USPS approved the change, and it was implemented immediately.

The company has realized an ongoing annualized savings of greater than \$100,000 in reduced chemical usage and energy consumption without adversely affecting product quality. In addition, it eliminated employee exposure to a chemical solution prone to bacteria growth and moving to a neutral-pH discharge has eased the load on its municipal water treatment system.

A comparison of the “current” and “advanced” chemical systems is summarized below:

Chemical	Current	Advanced	Advantages
Cleaner	<b>Gardoclean® S 5219:</b> Alkaline cleaner containing nonbiodegradable petroleum-based surfactants.	Environmentally friendly <b>Crysocoat® 2707:</b> 1) Employs acidic system containing biodegradable non-petroleum-based surfactants, and 2) Combines cleaning & conversion coating within same chemical package, eliminating 1 chemical.	1) Eliminates one chemical, & uses less chemical overall, 2) reduces heat to Stage 1 and eliminates heat to Stage 3, reducing energy costs, 3) has neutral-pH discharge, easing load to municipal water treatment facilities, 4) is more simple to operate & maintain and has less chance for operator error.
Conversion Coat	Crysocoat® 2147		

Chemical	Current	Advanced	Advantages
Seal	<b>Gardolene® D 6871:</b> Contains biocide for bacteria control.	<b>Gardolene® D 6810:</b> No biocide needed .	5) Has no bacteria and no need for biocide, eliminating operator exposure to dermatitis.

For more information on this project, contact:

Paul Dittmar  
 Florence Manufacturing Company  
 5935 Corporate Drive  
 Manhattan, KS 66503  
 (785) 323-4411  
 pdittmar@auth-florence.com

# *Frito-Lay, Inc.*

## Energy Efficiency and Pollution Prevention

Frito-Lay, Inc. is awarded for its efforts in energy efficiency and pollution prevention.

The energy efficiency project involved the installation of steam stop valves in various locations in the processing areas of the plant. The valves that were replaced were frequently requiring costly maintenance due to steam pressure build up on the valves and the valves were wearing down allowing more than 1% steam to escape. It was determined that this leakage could be greatly reduced by installing steam stop valves to provide significant monetary and energy savings for the facility.

The steam stop valves selected are designed to automatically shut off steam lines when the steam is not being called from the equipment. The upgrade to the steam stop valves provided

Frito-Lay with substantial monetary savings, along with an increased energy savings to the facility. The facility was able to save 39,610,000 BTUs and \$90,000 annually in natural gas usage.

The second project the facility is receiving an award for relates to water conservation due to the installation of water restrictors. Prior to the installation of water restrictors, Frito-Lay Topeka used 1.16 gallons of water for every pound of finished product. Although both recycled water and fresh water are used in the various processes of the plant, a restriction of the use of fresh water was plausible to further reduce water consumption. Frito-Lay aimed to reduce the amount of gallons used per pound of product to the site standard of 0.81 gal/bl.

The installation of water restrictors was initiated by performing an audit of initial water consumption used in the production lines of the plant. Heeding the goal of meeting the site standard for water use, possibilities for savings were drafted. In terms of cost, the most plausible solution was the installation of water restrictors.

Since installation of the water restrictors, the facility has conserved 7,460,000 gallons of water per year which is an approximate savings of \$37,500 annually. This savings meets the Topeka site requirement of 0.81 gal/lb finished product.

For more information on these projects, contact:

Jim Robinson  
Frito-Lay, Inc.  
4236 Kirklawn Avenue  
Topeka, KS 66609  
(785) 338-9306  
jim.robinson@fritolay.com



*Jim Robinson, KDHE Secretary Rod Bremby, and Misty Shaw*

## *Hallmark Cards, Inc.*

### Pollution Prevention

Hallmark Cards is awarded for its efforts in pollution prevention.

In the early 1990s, the Hallmark Cards, Inc. - Leavenworth Production Center, 4901 Select Products Drive facility began converting the gravure printing operation from solvent to water based inks and purchased a new parts washer that would clean parts coated with both ink types. The new parts washer used a cleaning solution that was a blend of n-methyl-2-pyrrolidone and ethylene glycol monobutyl ether. While the solution provided adequate cleaning of parts dirtied with both solvent and water based inks, there were several environmental, health, and safety implications that had to be managed appropriately. From a health and safety standpoint, the cleaning solution was an eye, inhalation, and skin irritant. Environmentally, the cleaning solution contained 100% volatile organic compound (VOC) and resulted in the potential to emit 60 tons with average actual VOC emissions of 12.5 tons, both chemicals required Toxic Release Inventory (TRI) reporting, and the parts washer generated an average of 7.4 tons of special waste per year.



*Mike Robert and KDHE Secretary Rod Bremby*

In 2007, Hallmark decided to print exclusively with water based inks. This provided an excellent opportunity to purchase a parts washer designed to clean parts dirtied with only water based inks with a cleaning solution that was friendlier from an environmental, health, and safety standpoint. The new water based cleaning solution contains 0% VOC, contains no TRI reportable chemicals, and generates a waste stream that could be processed through the on-site waste water treatment process. This has reduced the facility's VOC emissions 12.5 tons per year, reduced solid waste 7.4 tons per year, and has saved the company \$60,000.

For more information on this project, contact:

Michael Robert  
Hallmark Cards, Inc.  
450 Eisenhower Road  
Leavenworth, KS 66048  
(913) 727-6692 x412  
mrober1@hallmark.com

# *LSI Corporation*

## Recycling

LSI Corporation, a leading provider of electronic storage and networking products, is awarded for its efforts in recycling.

At the Wichita facility, one of the ways LSI is able to show its commitment to the environment is through its recycling program. The Wichita facility has been recycling electronic scrap for the past couple of years. The primary concern at the facility was to find a way to recycle all of the scrap generated from the research and development of computer server production. Once that was accomplished, the next step was to determine if any of the material being recycled could be used more efficiently within the facility.

Between January 2008 and March 2009, LSI's electronic waste actually decreased by 42,132 lbs. compared to previous years' results, partially due to new measures implemented that attempt to reutilize as much of the electronic material within the company even before sending it out for proper recycling. The total electronic scrap for 2008 was around 91,176 lbs.

Another way that the Wichita facility sponsors environmental stewardship within its employees is to conduct yearly Earth Day activities. One of its Earth Day events that employees could participate in at the Wichita LSI facility was to bring their electronic waste into the facility to be properly recycled and disposed of by LSI free of charge. Employees from LSI's green team, along with the EH&S manager, provided educational materials for the campaign. Space was provided in the shipping department for collection of materials to be disposed of through LSI's reclamation suppliers. The company by itself produced approximately 7,000 lbs. of electronic waste in the month of April. The employees helped to generate approximately 2,325 lbs. of additional electronic waste.

For more information, contact:

Ryan Livengood  
LSI Corporation  
3718 N. Rock Road  
Wichita, KS 67226  
(316) 636-8835  
Ryan.Livengood@lsi.com



*Ryan Livengood, KDHE Secretary Rod Bremby, and Amanda Maish*

# *Owens Corning Insulating Systems, LLC*

## Pollution Prevention

Owens Corning Insulating Systems, LLC is awarded for its efforts in pollution prevention.

When Owens Corning adopted a sustainability strategy in 2006, it began looking at ways to conduct business without compromising the world we leave for the future. Owens Corning established a goal to reduce overall water consumption by 15% from a 2002 baseline by 2012. Drought conditions in western Kansas and well water usage in its Kansas City plant motivated Owens Corning to look at a better way to manage this natural resource. One project approved as part of the sustainability strategy in 2008 was to reduce well water consumption in the Kansas City plant. The plant



*Natalie Bailey, KDHE Secretary Rod Bremby, and Brad Casemier*

was using over 670,000 gallons of well water per day to cool the oil emulsion and resin/urea tanks. This “once-through” well water was then sent to the sewer system, pursuant to the wastewater discharge permit.

One of the challenges that the team faced was the perception that the well water “is free” and that there are no operating costs associated with the use of well water at the site. Once the team understood the magnitude of the daily use of the well water in a “once-through” operation, a plan was put together to eliminate this practice. This project consisted of replacing the well water from the aquifer with a closed loop glycol chiller system.

The closed loop glycol chiller system also provides better thermal properties, eliminates erosion of piping and parts due to sediment and sulfate reducing bacteria contained in the well water. There will be an overall energy reduction due to decreased frequency of well water pumping in addition to decreased frequency of well cleaning.

The company predicts that 231,000,000 gallons of well water will remain in the aquifer in 2009 that would have otherwise been consumed in the manufacturing process.

For more information, contact:

Robert Jeffries II  
Owens Corning Insulating Systems, LLC  
300 Sunshine Road  
Kansas City, KS 66115  
(913) 281-9424  
Bob.Jeffries.ii@owenscorning.com

## *Schwan's Global Supply Chain*

### Pollution Prevention and Technology Innovation

Schwan's Global Supply Chain - Salina is awarded for its efforts in pollution prevention and technology innovation.

The Schwan's Food Company pizza plant in Salina is the number one user of the city's water. The water used is mainly in five major sectors of the manufacturing facility - the plant wash stations, facility bathrooms, refrigeration, boiling and cooling, and sanitation. In an effort to decrease its water usage, Schwan's researched each of these five areas for opportunities to conserve water.

One of the projects implemented to conserve water involved the sinks and water

troughs throughout the plant. According to USDA standards, the water used within the plant should be at least 100 F temperature. The boilers that heat the water are heating it to 180 F, then it is mixed with cold water to get to a comfortable 100 F for production purposes. In order to ensure this 100 F requirement, there was bleed off water at every sink and water trough in the plant. The bleed off water went straight down the drain to the waste water treatment plant without being used.

A system was devised that would re-circulate the bleed off water back into the system for reuse. This created a closed loop water system that ensured no more water was lost and the 100 F temperature is maintained. In addition to the closed loop system, flow restrictors were installed. These two measures combined to reduce water consumption by 34,953,000 gal/yr. with a savings of \$465,655.87 annually.

The technology innovation award is for Schwan's innovative use of the iButton. The iButton, a temperature data acquisition device the size of a dime, was used to conduct efficiency testing on Schwan's refrigeration trucks. Previously, the temperature setting for the diesel powered refrigeration units on the truck were set at a constant -20 °F. This temperature setting was not required to maintain the frozenness of the product, but data had to be obtained to determine how to retain quality product while increasing efficiency.

The iButton helped Schwan's obtain the data necessary to make improvements. The iButton was placed on top of the plastic wrapping of a 10-inch frozen pizza, which was then packaged, boxed, and placed in the truck at the location the pizza would take the longest time to be cooled. The case that was tested was insulated by other filled containers in order to obtain the threshold measurement. Three trucks were tested at temperature settings of -20 °F, -10 °F, and 0 °F. The temperature tests using the iButton showed the product would remain frozen at a setting of -10 °F. To increase the efficiency further, a start/stop system was incorporated into the refrigeration units. At -10 °F, the diesel engine is programmed to shut off and at -7 °F the diesel engine restarts. This reduced diesel gas consumption by 8,625 gallons for an average number of trailers of 34. In just one month, Schwan's was able to lower operation costs by \$24,576 by reducing its diesel gas consumption.

For more information on these projects, contact:

Randy Simmons  
Schwan's Global Supply  
2019 Scanlan Ave.  
Salina, KS 67401  
785-823-1671 x408  
randy.simmons@schwans.com



*Phil Richardson, Randy Simmons, KDHE Secretary Rod Bremby, Russell Sleek, and Greg Slater*

## *Via Christi Regional Medical Center*

### Pollution Prevention and Energy Efficiency

Via Christi Regional Medical Center, Wichita is awarded for its efforts in pollution prevention and energy efficiency.

The Via Christi Safety and Infection Control department staff began reviewing the documentation regarding the use of reusable sharps containers in early 2007. The existing sharps container management program was problematic with issues concerning staff injuries resulting from overfilled containers and concerns with the large amounts of bio-hazardous waste shipped several times each week from the hospitals. Each time sharps containers were filled to the two-thirds level, the container and contents were removed and placed in a red waste container to be shipped off for disposal as bio-hazardous waste.



*Carolyn Koehn, KDHE Secretary Rod Bremby, and Theresa Gassett-Haynes*

A service provided by the Stericycle® Company, which places re-usable sharps containers in hospitals, was researched and evaluated. Stericycle® provides sharps containers which are replaced with empty containers by a Stericycle® staff person on an as needed basis, generally 2 to 3 times a week. The filled container is placed on a rolling rack and is picked up and transported to a Stericycle® plant where the containers are scanned, placed on a conveyor belt, and fed into a secure area where a robot pops the lids off the containers, dumps the sharps into bins for autoclaving, and sends the empty containers through a tunnel washer where they are cleaned and disinfected. Each of the containers are visually inspected three times before being loaded back on the rack and transported back to our hospitals.

In addition to implementing the re-usable sharps containers, staff training on what is and isn't bio-hazardous waste was conducted. Via Christi had a total reduction of 81 tons of waste going to the landfill. This included approximately 19 tons in plastic sharps containers not being sent to the landfill and 62 tons were reduced by staff training and doing internal audits that evaluated red container size and placement.

The energy efficiency project Via Christi implemented to reduce its impact on the environment is called the Building Automation and Energy Conservation Project. The goal of the Building Automation Project is to lower all Via Christi's energy consumption per square foot down to the industry average. Various projects were researched, such as de-lamping, installing timers, steam trap maintenance, an employee energy awareness program, and working with IT on a power management program to implement sleep and hibernate settings. A Via Christi Environmental Stewardship Green Team has been formed. The team's role is brainstorming energy saving ideas as well as notifying employees and the public as to what Via Christi is currently working on to reduce its energy use. By implementing energy saving projects, Via Christi was able to save \$350,613 and 3,012,384 kilowatt hours from June 2007 to August 2008.

For more information, contact:

Carolyn Koehn  
Via Christi Regional Medical Center  
929 North St. Francis  
Wichita, KS 67214  
(316) 268-8632  
Carolyn\_Koehn@Via-Christi.org

*Walgreens  
Sedgwick County Environmental Resources  
K-State Pollution Prevention Institute*

Education and Outreach

Walgreens, Sedgwick County Environmental Resources, and K-State Pollution Prevention Institute are awarded for their efforts in education and outreach.

Homes across the country and right here in Kansas have stockpiles of expired and unwanted prescription and over-the-counter medications. Drain disposal of these old medications used to be a common practice, but in the last decade the U.S. Geological Survey has identified genetic changes in aquatic life due to elevated concentrations of pharmaceuticals in the waterways – levels that are now beginning to impact our drinking water supplies.



*Nancy Larson, K-State PPI; Caroline Hosford, Sedgwick County; KDHE Secretary Rod Bremby; Lynn Stover, Walgreens; and Jason Cunningham, Walgreens*

In early 2008 the Pollution Prevention Institute partnered with several key collaborators, including Walgreens pharmacies and Sedgwick County Environmental Resources, to launch a new outreach program in effort to educate residents not to flush old medications. The project has two primary goals: 1) eliminate old stock piles of medications at home, promoting safer homes; and 2) educate homeowners via retail pharmacies and medical clinics to eliminate drain-disposal practices and offer environmentally preferred disposal options that include the use of the local HHW or the KDHE-approved landfilling option, ultimately reducing the impacts on our waterways. Using a summer intern the program visited more than 200 retail pharmacies, medical clinics, and public places, distributing more than 525 educational posters and thousands of educational bag fliers.

Follow-up evaluations in person and via phone to 78 percent of the retail pharmacies found 96 percent of the facilities had implemented the program and continued to rank it very favorably. Additionally, the Sedgwick County Household Hazardous Waste facility reported a 35-40 percent increase in pharmaceutical waste received a few months after the start of the program. Pharmacists from around the area continue to request additional posters and bag fliers, reporting they are frequently asked about disposal recommendations and now feel confident they are providing a better alternative to the traditional drain-disposal method they previously recommended.

For more information, contact:

Nancy Larson  
K-State Pollution Prevention Institute  
7001 W. 21st Street N  
Wichita, KS 67205  
(316) 660-0104  
nlarson@ksu.edu

## *Waste Management, Inc.*

### Pollution Prevention

Waste Management of Kansas, Inc. - Wichita is awarded for its efforts in pollution prevention.

Waste Management has always been on the forefront of finding ways to reduce its carbon footprint on the environment. Because it is a very large corporation with thousands of trucks on North America's roadways each day, reducing the consumption of fuel is a major issue. In an effort to reduce fuel consumption and increase fuel efficiency, Waste Management rolled out the *Five Minute Idle Time Parameters* in April 2008. Through this program, each Waste Management site was instructed to inspect all vehicles 1998 or newer to make sure the Idle



*Cheri Ludwig, KDHE Secretary Rod Bremby, and James Richey*

Shutdown Timers were programmed to five minutes. By doing this, the amount of time the truck will be able to run idle is limited to five minutes. At the five-minute mark, the truck automatically shuts down.

In addition to the monetary impact of reducing fuel consumption, this project also reduces diesel emissions and the overall footprint on the environment. Implementation of this program reduced the fleet fuel consumption 7,266 gallons per year, saving \$30,993.50 and reducing CO2 emissions by 101 tons annually.

For more information, contact:

Cheri Ludwig  
Waste Management of Kansas, Inc. - Wichita  
4330 W 31st S  
Wichita, KS 67215  
(316) 945-4849 x225  
cludwig@wm.com