



WISCONSIN

FOCUS ON
ENERGY

Champions of Efficiency

SARGENTO FOODS

A BIG CHEESE IN ENERGY EFFICIENT AND ENVIRONMENTALLY FRIENDLY FOOD PROCESSES

Sargento Foods Inc.'s involvement with the Climate Wise program is a fine example of how a business, with strategic use of a government-industry partnership, can turn energy efficiency and environmental performance into a corporate asset. By combining a company-wide commitment to environmental stewardship, the dedication of employees, and effective use of a government sponsored program, Sargento has increased profits, revitalized its local communities and gained a global competitive advantage.



“We are steadily moving to include more energy efficient technologies into our plants by improving our designs and specifications. With each new construction job, we find there are several things we can do to improve our efficiency.”

*Brian Jenny, P.E. Senior
Electrical Engineer.*



CLIMATE WISE

Since 1994, the U.S. Environmental Protection Agency (EPA) has sponsored Climate Wise, a unique program that helps industry turn energy efficiency into a corporate asset by partnering to provide technical and financial resources. Climate Wise is a voluntary program that supports industrial firms in identifying cost effective energy efficiency investments. The Climate Wise program ensures high returns on investments for corporate projects through a simple, systematic approach accompanied by expert technical services and resources. Immediate results can be achieved in improved productivity, profits and morale, reduced costs and waste generation, and greater shareholder value. Partners also receive public recognition for their efforts.



CORPORATE COMMITMENT

Sargento Foods Inc. is a \$400 million, privately owned company with a staff of nine hundred throughout three locations in Wisconsin. The Consumer Division packages and markets shredded and sliced natural cheeses, snack food items and ethnic sauces. The Food Service Division produces custom appetizers as well as sliced and shredded natural cheeses for restaurants. The Food Ingredient Division supplies custom cut cheeses to other food manufacturers for use in their finished products.

The company continually strives to

improve its operations and management practices in existing facilities. It also works to incorporate energy efficiency in its standard design, specification and construction practices at new facilities. All employees are trained and encouraged to operate, develop, procure and manage all operations and products in a manner that supports a healthier environment. These practices have resulted in environmental benefits. They have also produced significant improvements in the company's bottom line and enhanced shareholder value.

THE GREEN TEAM

In order to meet its commitment to environmental and efficiency leadership, Sargento formed the Green Team in 1990. The Green Team, a group of employee volunteers, acts as the corporate focal point for environmental information and activities. The team meets regularly to identify and solve problems while taking steps toward continuous environmental improvement, both at work and in the community.

One of the primary goals of the Green Team is to educate and build awareness of environmental issues, concerns and opportunities. Sargento's Green Team helped implement environmental laws,

such as Wisconsin Act 335 - the recycling law. The team's ongoing projects include Adopt-A-Highway, an extensive recycling program, public education and awareness through the Green Team Bulletin Boards, Trash or Treasure Swap Boards, double-sided photocopying, a "lights out after work" policy and annual Earth Week events. The photocopying initiative alone has resulted in savings of \$8,550 per year for the company. Through the recycling initiatives, the Green Team successfully recycled over 190 tons of paper waste and over two tons of aluminum cans since 1992. This has resulted in savings by avoiding \$14,000 in landfill fees.





Lighting

In 1995, with the help of the Green Team, Sargento systematically began to implement the U.S. EPA's Green Lights Program throughout its facilities. New lighting technologies were first used in the Plymouth, Wisconsin plant. Pulse-start metal halide lights were installed in high bay production areas to replace older T12 fluorescent lighting. The Sargento engineering staff analyzed this lighting retrofit in terms of its energy efficiency, impact on maintenance, illumination levels, and acceptability to the occupants. The results proved to be highly favorable; not only were energy savings achieved, but also the level of illumination increased in the plant. The indirect benefits of better lighting were cited to include better employee morale and, ultimately, improved productivity.

“Our results showed that we could both improve the lighting levels and reduce lighting energy costs using efficient designs. Once we completed the first design application, subsequent ones were quite simple to implement.”

Chris Meyer, Facilities Engineer.

Following the Plymouth Plant project, similar lighting upgrades and other improvements have been applied in new plants. Most recently, the new Kiel Plant construction lighting design included:

- T8 Fluorescents with electronic ballasts
- Pulse-start metal halide lights
- Low energy exit signs
- Occupancy sensors in offices and restrooms

Refrigeration and Heating Systems

A variety of design improvements have been implemented for refrigeration systems. All designs include multiple compressors with multi-stage unloading. This has greatly improved the operation efficiency of the larger systems.

In newer systems, the ammonia refrigeration is used for both process cooling (which is a typical application) and additionally for space cooling. Through this approach cooling loads are maximized on the more efficient central ammonia refrigeration systems.

For its older plants, Sargento is planning to convert its bulk cooling from packaged CFC refrigeration systems to the more efficient central ammonia refrigeration systems. According to engineers' estimates, this will reduce compressor brake horsepower by 15 percent. This approach not only improves the energy efficiency, but also provides benefits for the reduction of ozone-harming CFCs. Ammonia is an ozone-friendly refrigerant.

Sargento has applied a similar centralization design approach to its heating systems. New plants (and eventually all plants) will be operated with heating distributed by steam from central boilers. The steam is used for both production and space heating.

Continued on back





**Champions of
Efficiency**

www.wifocusonenergy.com
1-800-762-7077



Refrigeration and Heating Systems

(Continued from inside)

Central systems provide opportunities for energy efficiency and have the added benefit of reduced maintenance costs, because in older plants, it is no longer necessary to maintain and operate many remote burners.

Advances also have been made in operational controls. For new construction, building automation systems (BAS) are specified with detailed sequences of operations included in the initial design documents for each major refrigeration and HVAC system. Furthermore, advanced computerized controls are placed on both compressed air systems and boilers to improve operation efficiency and control over standard operational controls.



Other Initiatives

Sargento has moved forward in achieving energy efficient practices in many other areas of its facilities and operations, especially new construction projects. Over the years, the company has incorporated several energy efficient design practices into its new construction standards.

Sargento Foods has implemented a number of other energy efficiency and pollution prevention measures. These include:

- White membrane roofing installed on all facilities to reduce solar-induced cooling loads on the buildings
- Variable speed drives included as standard practice on evaporators and coolers
- Soft start controls for all motors above 50hp
- Premium efficiency motors as a standard specification
- Compressed air systems designed to minimize pressure drop and to limit oversizing

WINNING COMBINATION

For more information on how your firm can save energy, protect the environment and join the Champions of Efficiency, contact:

JOHN NICOL

770 South Main Street
Fond du Lac, WI 54935

1-800-762-7077

e-mail: jlnicol@aol.com