Osceola Foods

CASE SUMMARY 12

OSCEOLA FOODS, INC.

Osceola, Iowa
Clarke County

Intern: Thomas Bruton
Major: Civil Engineering, Spanish
School: Iowa State University

The Company

Osceola Foods, Inc. is a subsidiary of Hormel Foods Corporation, a Fortune 500 company based out of Austin, Minnesota and a longtime leader in the meat processing industry. Hormel has both domestic and international production facilities, as well as a worldwide market share. Osceola Foods was established in 1995 and produces ham and bacon products.

Project Background

Osceola Foods has an environmental policy statement and a cardboard recycling program in place. Plant wastewater goes through an onsite pretreatment process before discharging to the city treatment plant. Efforts have been made within the plant to segregate some high strength wastes from the wastewater.

Incentives to Change

In order to reduce costs and be a more responsible community member, Osceola Foods wanted to decrease the Biochemical Oxygen Demand (BOD) of its wastewater to well below permit levels and reduce the amount of solid waste sent to the landfill.

Results

The intern studied plant water use, collected wastewater samples for testing and performed a solid waste audit. The project resulted in the following recommendations:

1. **Recirculate oven cooling water** - $94,095

Panned and molded meats are showered with water as an intermediate cooling step in the cooking process. Formerly, the shower water was recirculated through a closed loop that included the oven, a storage tank and a water chiller. When new temperature testing requirements for this water were introduced, the practice of recirculating this water stopped. By completing the testing and recirculating the water again, the company could save 15 million gallons of water annually.

2. **Improve cardboard recycling** - $31,854

Osceola Foods contracts with a vendor to recycle all of the plant's cardboard, including material contaminated with meat. It was believed that most cardboard was being recycled, but a visit to the landfill showed that cardboard made up as much as 25 percent of the waste stream. By talking with janitorial staff, posting flyers about the importance of recycling and developing new training materials, the company hopes to keep this estimated 287 tons of fugitive cardboard out of the landfill.

3. **Reuse trolley wash rinse** - $2,654

The machines that wash racks used to transport ham throughout the plant are two of Osceola Foods' major water users. Although the detergent solution used to wash the racks is reused, the final rinse water is discarded after one use. If a storage tank was installed, this clean water could be captured and used as makeup for the detergent solution. This project has the potential to save 390,000 gallons of water annually.

4. **Recycling additional materials** - $2,321

By sending two types of polystyrene material to a local businessman for recycling and baling paper multi-wall sacks with cardboard, the company will eliminate 30 tons from the landfill annually.

5. **Miscellaneous** - $16,790

Through improved dewatering of wastewater pretreatment sludge and an upgrade to more energy efficient lighting, the company could save 32,000 kWh of electricity annually.

Project Summary Table

Project	Annual Savings			Status
	Solid Waste	Resources	Cost	
Recirculate oven cooling water		15,055,000 gal water	$94,095	Implementation in progress
Improve cardboard recycling	287 ton		$31,854	Implementation in progress
Reuse trolley wash rinse		390,000 gal water	$2,654	Recommended
Polystyrene recycling	26.4 ton		$1,938	Implementation in progress
Multi-wall bag recycling	3.4 ton		$383	Implemented
Sludge dewatering			$15,860	Recommended
Upgrade lighting to T-8 lamps and LEDs		32,000 kWh	$930	Recommended
TOTALS	316.8 ton	15.4 million gal water; 32,000 kWh	$147,714	