

# OSCEOLA FOOD, LLC



**ALEXANDER GEORGE**  
CHEMICAL ENGINEERING  
IOWA STATE UNIVERSITY

## COMPANY PROFILE

Osceola Food, LLC, which was established 1995 in Osceola, Iowa, is a subsidiary company of Hormel Foods Corporation. Hormel Foods, headquartered in Austin, Minnesota, is a multinational manufacturer that produces brand name food and meat products for people around the world. Osceola Food focuses on the manufacturing of sliced bacon, hams, and sliced lunch meats. Covering 330,000 square feet, Osceola Food employs 800 people across three shifts and operates seven days a week

## PROJECT BACKGROUND

As a subsidiary company of Hormel Foods, Osceola Food is committed to practicing environmental stewardship in all their daily operations and continually seeks ways to improve environmental performance. One of Hormel Foods' environmental goals is to reduce solid waste going to the landfill by 10 percent by the year 2020. This commitment prompted Osceola Food to team with the Pollution Prevention Intern Program to evaluate their waste streams and recommend strategies to first reduce the generation of waste at the plant and then to explore reuse and recycling opportunities.



## INCENTIVES TO CHANGE

Osceola Food strives to continually analyze their waste streams and implement more sustainable practices that will help achieve their goal of becoming Zero Landfill. Reducing the amount of waste being sent to the landfill will create a positive environmental impact and can also have significant disposal savings.

## RESULTS

**Aerosol Can Recycling:** Aerosol cans are commonly used around the facility at Osceola Food and have the potential to be recycled with scrap steel instead of being discarded. With the purchase of a device that can puncture aerosol cans, Osceola Food can recycle approximately 0.5 tons of empty aerosol cans annually.

**Bulk Silicone Spray:** Food grade silicone spray is currently purchased by Osceola Food in individual aerosol can sizes. Purchasing the silicone in bulk fifty-five gallon drums and utilizing reusable spray bottles could eliminate the aerosol can waste and significantly cut the company's purchasing costs.

**Plastic Slip Sheet Reuse:** Plastic slip sheets arrive on incoming pallets and are used to protect the cardboard totes that contain product for manufacturing. The slip sheets may be wet or contaminated with residue from food processing, which prevent the sheets from being recycled. More than 29 tons of waste could be diverted from the landfill if the slip sheets were washed, sanitized, and returned to the corporate office in Austin, MN for reuse.

PROJECT	ANNUAL COST SAVINGS	ENVIRONMENTAL RESULTS	STATUS
AEROSOL CAN RECYCLING	\$237	0.5 TONS	IN PROGRESS
BULK SILICONE SPRAY	\$14,983	0.5 TONS	RECOMMENDED
PLASTIC SLIP SHEET REUSE	\$2,826	29.9 TONS	RECOMMENDED
CARDBOARD TOTE RECYCLING	\$5,324	35.5 TONS	IMPLEMENTED
GREASE RECLAMATION	\$6,819	12 TONS	RECOMMENDED



**Cardboard Tote Recycling:** Incoming product for processing arrives in cardboard totes. When the totes are emptied, the totes are used around the facility as waste and recycling containers. When the totes used as waste containers are full, they are placed in the waste compactor instead of being emptied and placed into the cardboard compactor. Switching to reusable steel baskets for waste collection could divert 35 tons of cardboard from the landfill.

**Grease Reclamation:** Grease is a byproduct of the pre-cooked bacon lines and can be sold into the renewable fuels industry. The intern researched opportunities for Osceola Food to capture more of the grease while maintaining the standards and efficiency of the cleaning and sanitation processes. A screen or basket installed underneath a potential drop point for bacon could capture an additional 12 tons of grease annually that could be beneficially reused and generate additional revenue.

## ESTIMATED CONVENTIONAL AIR POLLUTANTS DIVERTED IN METRIC TONS

For Implemented and In Progress Recommendations

TOTAL FOR ALL SECTORS						
CO <sub>2</sub>	NH <sub>3</sub>	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC
0.00	0.01	0.03	0.01	0.01	0.02	0.02

## ESTIMATED GREENHOUSE GASES DIVERTED IN METRIC TONS

TOTAL FOR ALL SECTORS			
MTCO <sub>2</sub> e	CH <sub>4</sub>	N <sub>2</sub> O	CFC
133.00	44.20	0.61	0.12

## ESTIMATED CONVENTIONAL AIR POLLUTANTS DIVERTED IN METRIC TONS

For Recommendations in Recommended Status

TOTAL FOR ALL SECTORS						
CO <sub>2</sub>	NH <sub>3</sub>	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC
0.00	0.00	0.00	0.00	0.00	0.00	0.00

## ESTIMATED GREENHOUSE GASES DIVERTED IN METRIC TONS

TOTAL FOR ALL SECTORS			
MTCO <sub>2</sub> e	CH <sub>4</sub>	N <sub>2</sub> O	CFC
73.00	0.00	0.00	0.00

