

# CNH America LLC

## COMPANY BACKGROUND



Case New Holland (CNH) was formed in 1999 when New Holland NV and Case Corporation merged, and is now part of the Fiat Group. Rising to be a leader in manufacturing of construction and agricultural equipment, CNH is a global company with dealers in 170 locations and manufacturing plants in 16 countries. The Burlington plant, which makes the tractor loader backhoe, utility tractor and rough terrain forklift, is one of 11 CNH manufacturing plants in the United States and employs approximately 265 people.

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### PROJECT BACKGROUND

This was CNH-Burlington's second year hosting an intern with the Pollution Prevention Intern Program. The intern focused on implementing a comprehensive recycling program throughout the plant and establishing utility sub-metering and heat recovery systems.

### INCENTIVES TO CHANGE

CNH is dedicated to pursuing greener manufacturing methods and is continually improving its environmental management system. Because CNH is aware of the environmental and

financial impacts of better waste management, the company has set out to be a 'no-landfill plant'. Beginning a comprehensive recycling program was the first step in achieving this goal. Energy conservation through utility metering and heat recovery is another step for CNH to become a greener plant.

### RESULTS

**Recycling Program:** In order to assess CNH's current waste situation, a waste audit was performed. Each waste container throughout the plant was cataloged and the amount of specific materials was estimated and recorded. After examining all containers, the intern discovered that 70 percent of CNH's waste was made up of recyclable materials, mostly coming from packaging waste. If CNH recovered three-fourths of the recyclable material, the company could divert more than 50 percent of its waste stream from the landfill.

CNH was able to financially justify setting up a plant-wide recycling program by diverting waste from the landfill, cutting the number of trips taken to the landfill in half and reducing the number of waste containers rented. There is potential for CNH to produce an income by selling the recyclable goods.

CNH set up the recycling program to be easy and sustainable for operators. Operators are able to throw any type of recyclable material in the same bin, which they then dump in nearby recycling area collection points. An outside company picks up the containers at the collection points and sorts, bales and loads the recyclable material.

After only two weeks of operation, the program has recycled four tons of cardboard, one ton of plastic, one ton of paper and 250 pounds of Styrofoam. The program has run smoothly and is on track to meet all of its recycling goals.



**Utility Sub-Metering:** CNH has hundreds of motors throughout the Burlington plant, which were in need of cataloging and managing for utility usage. CNH is working on cataloging the motors and purchasing utility sub-metering to monitor the motor's electricity usage. The data collected will then be used to reduce the electricity usage.

**Heat Recovery System:** CNH has a large E-Coat paint system that must maintain a temperature of 350° F in its large ovens. Utilizing a heat exchanger to capture heat from the oven exhaust and reroute it to heat a portion of the assembly area would generate significant savings. This practice has successfully been used in other areas of the plant.

### AIR POLLUTANTS DIVERTED IN TONS

Total for all sectors	
SO <sub>2</sub>	2.22
CO	0.47
NO <sub>x</sub>	1.09
VOC	0.34
PM	0.06

### GREEN HOUSE GASES DIVERTED IN TONS

(CO<sub>2</sub> Equivalent)

Total for all sectors	
CO <sub>2</sub>	2191.1
CH <sub>4</sub>	96.5
N <sub>2</sub> O	0.40
CFC	5.32

PROJECT	ANNUAL COST SAVINGS	ENVIRONMENTAL RESULTS	STATUS
RECYCLING PROGRAM	\$21,100	222 TONS 74,815 THERMS	IMPLEMENTED
UTILITY SUB-METERING	\$35,000	1,225 KWH	IN PROGRESS
HEAT RECOVERY	\$31,000	30,940 THERMS	IN PROGRESS