Intern: Andrew Bro
Major: Chemical Engineering
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Company Background:

Greater Omaha Packing is a large beef processing plant located on "L" Street in Omaha, Nebraska. The plant consistently harvests around 2,300 head of cattle each day, producing boxed beef primals that are distributed locally and around the world. Greater Omaha Packing is a leader among beef packing plants, aiming to provide the highest quality beef in the world.

Project Description:

Greater Omaha Packing is committed to continued growth and excellence in everything that they do. This includes their impact on the environment and usage of water and energy. One of the main goals of this project was to measure how much water and energy is used by the major microbial intervention systems to safely process beef. Having this baseline data allows Greater Omaha Packing to realize how and where water and energy are used at the plant, and to identify potential locations for water and energy conservation. Data was collected using flowmeters installed at the plant, a portable ultrasonic flowmeter, and electricity data loggers.

Pollution Prevention Benefits:

Several pollution prevention opportunities were suggested that could reduce water and energy usage throughout the plant. The main opportunities related to the optimization of clean-up operations. Some of these recommendations include little to no capital costs and provide significant possible savings. Other small recommendations do not have quantified savings, but provide Greater Omaha Packing with further investigation opportunities that could realize tangible benefits in the future. The estimated pollution prevention benefits from this project can be found in Table 1 below if all suggestions are implemented.

Table 1. Pollution Prevention Benefits

P2 Category	Annual Cost Savings	Annual Usage Savings/Reduction
Water	$135,800	25,400,000 gallons (gal)
Natural Gas	$128,600	22,500 decatherms (DTH)
Electricity	$49,000	677,000 kilowatt-hours (kWh)
Carbon Dioxide Equivalent	-----	1,960 metric tons (MT CO_2E)
Total	**$313,400**	