



Partners in Pollution Prevention Intern: Sarah Porath

Major: Civil Engineering

School: University of Nebraska-Lincoln



Company Background

Originally the company was called the New England Auto Products Corporation, but in 1924, the trade name became Neapco LLC. The company designs, manufactures, and distributes original equipment for automotive, light truck, heavy trucks, off-road, agriculture, and industrial/construction applications. The headquarters is located in Pottstown, Pennsylvania, and it has world-wide locations in Mexico, Germany, and China. The location in Beatrice, Nebraska manufactures light, commercial, and off-highway vehicle products, such as prop shafts, drive shafts, axles, and bells, along with aftermarket products.

Project Description:

During the summer of 2016, a P3 intern, Sarah Porath worked at Neapco in Beatrice, Nebraska to further assess their potential Pollution Prevention (P2) opportunities. She investigated their electricity consumption, their waste water streams, the office facility HVAC communication system, and the battery life of the fork lift truck’s. Neapco was focused on receiving detailed evaluations and recommendations to reduce their energy consumption and increase their cost benefits.

Pollution Prevention Benefits:

This report includes recommendations that will allow Neapco to reduce their consumption of resources, help the environment, improve their energy usage help employees be more productive and create a safer and more comfortable work environment. This report will provide suggestions to install five chiller systems to save Neapco **21.5 million gallons of water** annually and to install LED High Bay light fixtures in all of the buildings in their manufacturing plant, which would reduce their annual electricity consumption by **1,276,376 kWh**. The Pollution prevent benefits and results are summarized in Table 1.

Table 1: Pollution Prevention Results

Description	Annual Cost Savings	Annual Reductions
Switch to electric hand dryers	\$1,650	1,872 Paper towel rolls
Shut off work station fans in unoccupied areas	\$2,800	39,000 kWh of electricity or 40 MMCO ₂ emissions
Implement an office recycling program	-----	545,000 sheets of paper
Install LED Lights in all the Buildings	\$89,600	1,276,400 kWh/ 776.2 MMTCO ₂ emissions
Install four Koolant Kooler chillers	\$91,500	21.3 million gallons of water
Furnace Air Filters	\$1,300	240 air filters
Forklift Truck Battery	\$10,400	Extend battery life to five years
Total	\$197,250	