Intern: Jared Powers
Major: Mechanical Engineering
School: University of Nebraska-Lincoln

Background

Aulick Industries is an agricultural based company which manufactures trailers, boxes, dump carts and any other agricultural equipment needed. The company started in 1952 and has since grown and branched out to many other locations to serve its customer's needs. In addition to manufacturing agricultural equipment, Aulick Industries also specializes or has at one time specialized in many other fields of work including construction-based boxes, oil rigs, Cummins motor houses, hunting blinds, extending trucks, Ag trailers, and other custom jobs.

Project Description

During the summer of 2018, a P3 intern, Jared Powers looked at many different processes and areas of Aulick Industries to determine ways to prevent pollution at the source. The main areas of interest were as follows: looking at how the wet kits were made to determine a more time efficient way to assemble them, analyzing the lighting system to determine the feasibility of installing LED lights, designing and building a water heater that would outlast the water heaters Aulick Industries currently uses, looking into a paperless ordering system, looking into material waste associated with a specific part, and looking into general waste management.

Pollution Prevention Benefits

The recommendations made could lead to many pollution prevention benefits for Aulick Industries. The table below lists the pollution prevention benefits and results.

Table 1. Pollution Prevention Benefits

P2 Opportunity	Cost Savings ($/yr)	Energy Savings (kWh/yr.)	Waste Reduced Annually	GHG Reduction (MTCO2e/yr.)
Install Hand. Dryers	$550	-	290 lbs. paper	0.02
Install New Fountain Head	$750	-	320,000 gal Water	-
Shut Off Valve on Small Shear	$60	-	20 gal Oil	0.2
Instructions for Wet Kit Assembly	$2,200	-	31 gal Oil	0.3
Paperless Ordering	$300	-	6 reams of paper; 11 ink cartridges	0.08
Upgrade Lighting to LED	$6,300	59,000	-	64
Material Reduction	$3,500	-	2,500 lbs. steel	1.56
Build New Boiler	$2,500	-	-	1
Total	**$16,000**	**59,000**	**-**	**67**