



Partners in Pollution Prevention Intern: Laurel Metzger

Major: Chemical Engineering

School: University of Nebraska-Lincoln

Company Background

Hughes Brothers Incorporated, a manufacturer of crossarms for power lines, was founded in 1921 when a severe ice and sleet storm hit Nebraska. This storm caused damage to many crossarms, leading the four Hughes Brothers (John R. Hughes, H. Burr Hughes, Ben H. Hughes, and Ted R. Hughes) to accept the challenge of replacing the crossarms. After successfully completing this task, the Hughes brothers vowed to become a company dedicated to producing high quality crossarms. Currently, Hughes Brothers Inc. consists of three main facilities: wood, steel, and fiberglass. With nearly 300 employees and over 300,000 square feet of manufacturing space, Hughes Brothers continues to grow and lead the electric utility industry.

Project Description

In 2013, Hughes Brothers sought assistance to create a more environmentally friendly company, specifically in the galvanizing process and steel forging process. Laurel worked to increase the energy efficiency of the galvanizing tanks and combustion furnaces, as well as improve the air quality in both departments to create a cleaner working environment for employees. In addition, Laurel made suggestions to improve the lighting at Hughes with energy efficient fixtures.

Pollution Prevention Benefits

The recommendations listed in this report will allow Hughes Brothers to be a more environmentally friendly company by conserving energy and resources. In addition, many of the suggestions will allow the employees of Hughes Brothers to be safer in a cleaner and more comfortable working environment. The lighting suggestions included in this report will provide high quality lighting that uses less energy per fixture than the current lamps at Hughes Brothers.

Results

The pollution prevention benefits and results are summarized in Table 1 below.

Pollution Prevention Results

Description	Annual Cost Savings	Annual Reductions
General	\$11,200	7300 lbs of solid waste
Galvanizing	\$19,100	25,000 lbs of hazardous material
Forging	\$3000	14,000 therms of natural gas
Lighting	\$240	2600 kWh
TOTAL	\$34,000	