

## Chapter 1- Project Overview

### Industrial Placement

**Intern:** Zachary Seier

**Major:** Mechanical Engineering

**School:** University of Nebraska- Lincoln



### Company Background

Four brothers started Hughes Brothers, Inc. in 1921. In the beginning, Hughes Brothers was a small company manufacturing wooden cross arms. Today Hughes Brothers is an industry leader in high quality transmission and distribution material manufacturing. Their factory houses a complete wood, metal and fiberglass manufacturing operation. Hughes Brothers produces virtually every component needed in the assembly of their products.

### Project Description

Zachary Seier, a 2013 Partners in Pollution Prevention (P3) intern, evaluated three main sustainable manufacturing areas at Hughes Brothers facility: metrology, single-use packaging, and embrittlement. There was a management report written for all areas of focus that included suggested pollution prevention and sustainable manufacturing options. Each suggestion accomplished one or more of the following goals: annual cost reduction, waste reduction, and increase in part dependability.

### Examples of P2 Suggestions

The following are examples of some of the results from this project.

P2 Suggestion	Results	Savings
Pallet Wrapz (5 years)	Reduce plastic stretch wrap consumption by 1,300,00 ft	\$30,000
Measure DET blanks only	Reduce scrapped metal by 60,000 lbs annually.	\$300,000

Hughes Brothers has shown a great dedication to pollution prevention over the years. This project is just an extension of Hughes Brothers dedication to reducing their environmental impact.