

Project Overview



Industrial Placement Intern: Jeff Williams

Major: Industrial Engineering

School: Kansas State University

The Company

Eaton's Automotive Engine Air Management facility in Kearney, Nebraska is a well-established and complex manufacturing business where 700 employees transform steel entering the plant as raw stock into intricate intake and exhaust valves for engines. Within the confines of this 341,000 square feet facility, gears for transmissions and differentials are created to serve the commercial automotive industry. By forging, grinding, polishing, and inspecting, Eaton Automotive creates some of the most well known products in the world. The Eaton Corporation's dedication to excellence extends to their environmental consciousness as well. The Environmental Health and Safety (E.H.S.) department has many practices in place that keep the company compliant with regulations as well as many programs that keep the facility striving to go above and beyond what is required. Continuous employee training keeps all employees aware of environmental issues within the plant so that they can aid in the ongoing quality improvement process as well.

Project Description

Jeff Williams, an intern with the 2006 Partners in Pollution Program, investigated and explored new options and practices related to forging lubricant waste and grinding swarf disposal that may help Eaton Kearney in working towards its goal of environmental stewardship in a cost effective way.

Pollution Prevention Benefits and Results

Table 1 below shows current practice costs/amounts for disposal of the forging lubricant compared to projected costs/amounts after implementing pollution prevention recommendations.

Table 1: Lubricant Disposal Costs and Amounts

	Cost per Year	Disposal Volume per Year
Current disposal cost/amount	\$189,720	153,000 gallons
Implementation Idea		
Heat tank to cut waste volume by 40%	- (\$75,888)	91,800 gallons
Reuse of 144 barrels of boiled lube	- (\$76,089)	83,880 gallons
Cut waste volume by addn'l 7,920 gallons	- (\$9,821)	83,880 gallons
New disposal cost/amount	\$27,922	83,880 gallons
Cost savings of \$161,798		

Metrics for this table were generated by Jeff Williams, 2006 P3 intern, and Greg Sullivan, EHS Engineer.