Textron

CASE SUMMARY 22

TEXTRON FASTENING SYSTEMS

Decorah, Iowa
Winneshiek County

Intern: Pieter Beyer
Major: Environmental Engineering
School: University of Iowa

The Company

Established in 1969, Textron Fastening Systems is an ISO 14001 certified international manufacturer of fasteners such as bolts, nuts, screws, rivets, and washers. The 580 employees of the Decorah facility produce about 10 million fasteners per day for customers such as Harley Davidson, Ford, Motorola, and Leatherman.

Project Background

In order to further improve its environmental record, Textron Fastening Systems wanted to create a waste stream database which contained all quantifiable waste streams of the facility. The database would help to identify further improvement projects, as well as provide the convenience of having data on all waste streams in a central location.

Incentives to Change

Textron Fastening Systems strives for continuous improvement of their environmental record which includes successfully eliminating four ISO 14001 significant aspects, planting a native prairie grass meadow, and participating for the second year in a row in the P2 intern program.

Results

Waste Stream Database

A waste stream database was created in order to track all quantifiable waste leaving the facility. Currently the database tracks 29 wastes and has an integrated feature which uses the data entered to calculate releases of Chromium, Copper, Nickel, Manganese, Nitrate Compounds, Glycol Ethers, and Toluene for use in Tier II reporting as well as environmental audits.

Low Temperature, Never-Dump Cleaner: $665,330

Trials of a new cleaner for use in seven of Textron's parts washers are currently underway. The new cleaner operates at a near-ambient 110º F and, with the addition of a settling tower, can be run on a never-dump basis. This allows for increased throughput, less energy use with respect to heating of the cleaning solution, and water conservation by not having to dump dirty cleaner.

Compressed Air Leaks: $12,500

An ultrasonic detector was used to locate compressed air leaks throughout Textron's facilities. A total of 19 compressed

air leaks were found, ranging from 3 cfm to 10 cfm, and a total loss of 104 cfm.

Use of Better Absorbent: $2,920
Textron currently uses a clay-based absorbent in a sludge stabilization process that requires a 1:1 ratio, by volume, of absorbent to sludge. By switching to an absorbent made of recycled paper Textron would require only half the volume of absorbent, and reduce the amount of material sent to the landfill.

Project Summary Table

Project Description	Environmental Impact	Economic Cost Savings	Status
Waste Stream Database	Improved Data Management	Not Quantified	Implemented
Low Temperature Never-Dump Cleaner In Parts Washers	855,282 kWh/year	$665,300/year	Implementation in Progress
Compressed Air Leaks	207,000 kWh/year	$12,500/year	Implemented
Use of Better Absorbent	388 ft/year	$2,920/year	Implementation in Progress