

During the summer of 2005, the Pollution Prevention Internship program placed Ryan Peltier at Formica Corporation and Jennifer Long at LANXESS Corporation. In November, Ryan Peltier presented to the policy committee about his experience with Formica Corporation.

Jennifer's internship was still active during this time, and she was gathering her conclusions and formulating her results. Attached is a brief case summary about Jennifer's experience at LANXESS.

Project Background:

The goal of this summer internship was to assist in waste reduction projects that LANXESS had identified yet lack the resources to investigate possible solutions. The projects investigated throughout the summer required various investigations into alternative materials and associated cost analyses, in addition to tracking and quantifying waste streams. There were two solid waste projects evaluated. One was finding an alternative material to use in the onsite wastewater treatment plant. The other project was to reduce the amount of plant trash being landfilled.

Incentives for Change:

LANXESS Corporation is ISO 14001 certified which requires continual improvement of their waste reduction processes. To accomplish this goal, LANXESS has adopted several waste reduction efforts in the past including a implementing a recycling program, updating equipment and improving process activities. However, the company continues to identify opportunities for possible waste reduction and cost savings. LANXESS Corporation is committed to waste reduction and is eager to take steps toward generating less waste.

Results and Conclusions:

The results for the two main projects are as follows:

Dry Bed Solidification Project at the waste water treatment facility - The amount of waste created by solidifying the liquid waste from various plant processes are large and cost intensive. Currently, LANXESS purchases mulch to solidify this material. Two alternative materials were tested throughout the course of the internship. The trials yielded waste minimization and cost effective results. After experimenting with a paper sludge waste from another manufacturer and fly ash from an onsite coal fired boiler, the recommended material to use is the fly ash.

Switching from mulch to fly ash will provide waste minimization and cost savings. This change is expected to reduce approximately 3,010 tons of waste and save between \$17,000 and \$35,000 annually.

Plant Trash Reduction Project - Although LANXESS has implemented a recycling program for their cardboard, plastic and metal, there are still 2.5 million pounds of waste landfilled each year. To reduce this amount, several options were analyzed. Since 85% of the plant trash is from building 8 (the compounding and packaging area), this area became the main focus of the project. Fifty six percent of building 8's trash was generated from plastic bags after expelling raw materials. By recycling these plastic bags, an estimated 893,571 pounds of waste would be reduced saving the company \$23,257 annually.

Project	Cost Savings	Waste Minimized
Dry bed solidification	\$17,000-\$35,000	3,010 tons
Plant trash reduction	\$23,257	446 tons