



Go Green for the Money

There is a major misconception that environmentally friendly projects are a costly expense. That mindset is based on the models that were developed in the 1970s and '80s. At that time, the assumption was that pollution or waste was inevitable, so we then needed to develop methodologies to clean up the problem. Treatment facilities were dubbed "pollution prevention centers," and treatment was and continues to be expensive.

By the late 90's, a new school of thought emerged that transformed this paradigm. The question changed from figuring out the best way to treat the waste to understanding the best methods to prevent it. A simple example is the catalytic converter equipped on any standard automobile today. The question posed was: "How can we clean up the pollution coming from the tail pipe?" The better question would have been: "How can we burn the fuel more effectively so there is no pollution emitting the pipe?" The outcome of solving the latter problem may have improved gas mileage rather than lowering it.

Over the last decade, MVATC has completed dozens of projects in the pollution prevention arena, and we always try to achieve the following goals:

- The change must be either quality positive or neutral.
- It must improve worker safety.
- It cannot overly complicate the process.
- The payback needs to be under two years.
- The environmental results must benefit the company.

Below are some brief examples:

1. A metal parts manufacturer in Westmoreland switched from a standard spray booth to an electrostatic system. The company now coats five times the parts with the same amount of paint. Instead of changing air filters every week, they are replaced every other month, and cleanup now takes 15 minutes instead of two hours. The payback was six months.

2. Because of its process, a frozen dough food processor was discarding an average of 650 pounds of flour per week. The flour was dropping off the product as it moved through the line. This created a slip hazard on the concrete floor for the workers and required an extra two hours of cleanup each night. By installing catch pans under the line, the company was able to effectively recover 95% of the flour. It made the working environment much safer, while the financial payback was less than four months.

3. An aluminum extrusion company in Johnstown had a die cleaning issue. Under its old cleaning process, the used die was filled with waste aluminum and placed in a caustic bath. The caustic substance reacted with the aluminum and cleaned the die. All 10 pounds of the aluminum was consumed in the process. This process generated 25 pounds of waste each time. A new process was developed using a high-pressure shower of caustic material. Instead of dissolving 100% of the aluminum, less than 10% was dissolved. This resulted in a recovery of 90% of aluminum and a 90% reduction in waste. The payback is projected to be less than two months.

The key: looking at the issue from a different perspective and keeping an open mind. If you are interested in learning more, contact Paul MacEnroe at (315) 793-8050 or email him at pmac@mvatc.com.