



Sustainability

As a good corporate citizen, Proteus Packaging has always supported initiatives that promote responsible use of our natural resources. In the recent past we were honored with an award from Milwaukee's mayoral committee on the environment. It was easy for us to continue these initiatives and expand them as we designed, built and moved in to our new facility in Franklin, Wisconsin.

Our view separates sustainability into three distinct segments; **Environmental Stewardship**, **Energy Conservation**, and **Responsible Recycling**.

Environmental Stewardship

Proteus's efforts in this area are focused on pollution prevention. As we searched for a building site, we found that the Franklin business park had done much of the analysis for storm water run off. The storm sewer system was already in place to handle the rain water and the landscaping plan created as much green space as possible to absorb rain water in a natural way.

Our printing processes have adopted the most environmentally friendly inks and coatings. Proteus's VOC emissions are well below any government threshold. We also added a litho water system that re-circulates and cleans the process water of impurities allowing us to use 80% less additives while reducing the frequency of the cleansing cycles by 50%. Our "under the roof" scrap/waste handling system has a filter allowing us to return cleaned and conditioned air back into the plant with zero dust going into the air.

Energy Conservation

The process of converting paperboard works best when the environment is in control. Temperature and humidity extremes cause havoc on our process. The ongoing costs of maintaining this constant environment played a major role in the design steps taken in developing the HVAC system and in insulating the building. We improved both the wall and roof "r" values 18-20% above the code requirements. Heating and air-conditioning systems installed are the most energy efficient available. In the plant, air turnover units keep the temperature between the floor and ceiling within five degrees in winter and summer. The *Medasys* control system manages the environment with off time set backs and allows our maintenance staff to diagnose problems and control the environment 24 hours per day, seven days per week.

Another improvement was the introduction using captured heat to our advantage. The process uses captured heat from several areas to preheat boiler water, reducing the natural gas consumed.

The lighting system is the most energy efficient available. We used highly reflective 4 or 6 bulb fixtures in the majority of the manufacturing area. These fixtures are all controlled by low voltage switching that plans time of occupancy. In addition, many areas have occupancy sensors to turn lights off when there is no activity.

During the relocation of our equipment we retrofit several of our large pieces of equipment with frequency drives that improve reliability, provide the same horse power with reduced energy consumption and lower maintenance costs.

Half of our fleet of material handling vehicles was replaced with 80 volt electric AC trucks. The technology creates extended battery life, getting significantly more run time per charge. While in operation some of the components return power to the battery to further extend time between charging. An obvious benefit of electric trucks is no exhaust emissions created by propane or diesel trucks. The three electric lift trucks that were not replaced during our move are scheduled to be replaced with this new technology in the near future.

Recycling Programs

Paperboard by its very nature is recyclable and often times, is itself made from recycled fiber. Virgin paper comes from an infinitely renewable resource. Forest products companies in the United States plant 1.7 million trees per day-five new trees for every tree harvested. Paper has become a farm crop not unlike corn or soybeans.

In Proteus's new facility we put in an air scrap system that captures all of the trim and waste from every possible area allowing us to bale and recycle 100% of our waste. If there is fiber, it is recycled.

All metals-ink cans, banding, baling wire, steel drums and sheet aluminum are all recycled. All waste oils and chemicals are recycled.

Final Thought

Though sustainability initiatives are new for many Proteus adopted a very simple philosophy a long time ago that we still think very aptly describes the foundation of sustainability....

Take Care of Yourself.....Take Care of Each Other.....Take Care of This Place