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Pollution Prevention

**Governor's Pollution Prevention
Award Recipient
Plasticolors, Inc.**

Plasticolors reduced waste, lowered operating costs and used its savings to reward employees. It's a good example of how pollution prevention pays off for everyone.

Governor George V. Voinovich

The Governor's Awards for Outstanding Achievement in Pollution Prevention have been presented since 1986. Plasticolors, Inc. was one of seven recipients to receive the Award in 1992. The sixth annual awards were presented in the Cabinet Room of the Statehouse on October 13, 1992, by Governor George V. Voinovich. These awards are designed to recognize outstanding commitment to improve Ohio's environment through pollution prevention. Evaluation criteria included: the overall effort to reduce waste at the source, recycle or recover materials, or conserve energy; soundness of approach; cost-effectiveness; ability of the program to serve as a model for others; and effectiveness in promoting prevention as the preferred long-term approach.

What is Pollution Prevention?

Pollution prevention is the use of source reduction techniques to reduce risk to public health, safety, welfare and the environment and, as a second

preference, the use of environmentally sound recycling to achieve these same goals. Pollution prevention includes waste minimization, avoids cross-media transfers (of wastes and/or pollutants), and is multi-media in scope, addressing all types of waste and environmental releases to the air, water and land.

Plasticolors, Inc.

Plasticolors, Inc., Ashtabula, Ohio, was recognized for a successful waste minimization program that reduced hazardous waste generation by 43 percent its first year. The reduction in hazardous waste generation saved enough money to allow the company to give each employee a \$500 bonus.

Plasticolors, Inc. is a producer of colorants, additives and dispersions for the plastics industry. Unlike paint, which is applied to the surface of a product, colorants are mixed into plastic as it is formed. The company employs approximately 100 people.

Pollution Prevention Activities

As Plasticolors has grown, the volume of waste generated has increased. Many raw materials could only be disposed of by approved carriers at secure landfills. By 1990, the company was spending approximately \$125,000 a year on waste disposal. Rising disposal costs, the growing scarcity of secure landfill space and an increased concern for the environment induced the company's waste minimization program.

Plasticolors developed and implemented a waste minimization program, called WASTEMIN. It was designed to reduce internal costs while reducing risk to the environment. The goal of WASTEMIN was to reduce the waste generated and to reuse materials when possible without affecting product quality.

The pollution prevention techniques were conceived, developed, and implemented by the Waste Minimization Team. This team utilized the talents

and abilities of the employees. The team was composed of employees representing administration, sales, technical and production functions. The first year goal of the seven-member Waste Minimization Team was to reduce waste by 25%. After three months of planning and organization, the team encouraged the participation of all employees. The employees received various degrees of training and education regarding the proper segregation, collection, reuse, and disposal of residual materials and the associated costs.

Before WASTEMIN was established, flammable waste had been segregated from combustible waste, and pourable waste had been segregated from thick liquid waste. The Waste Minimization Team also began segregating material for reuse in the manufacturing of new or existing products. Initially, the program started collecting and reusing resins which were used to purge out sandmill chambers, and related equipment, between product



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runs. This material was identified, collected, and stored for use in the next product run.

Production scheduling was incorporated so colors being processed would be in the proper sequence. Two additional mill chambers and pumps were purchased to reduce the frequency of cleaning. This resulted in a reduction in the amount of purge generated.

All areas of Plasticolors are involved in WASTEMIN. The largest reductions in waste generation have come from the production area. Other reductions have occurred in the lab, as a result of revised procedures. For example, the lab now collects smaller quality control samples.

The company also collects office and computer paper and cardboard for recycling. During the first plan year, 12,227 pounds of solid waste was recycled.

The amount of resinous and water waste generated during the 12 months prior to the waste minimization program was 556,100 pounds (197,073 pounds of waste material and 368,027 pounds of waste water). During the first plan

year it was 315,478 pounds (89,422 pounds of waste material and 226,056 pounds of waste water). This amounted to a 43 percent reduction in resinous and water waste.

The total investment during the plan period of October 1, 1990, to September 30, 1992, was \$32,911. This included \$24,556 for two sandmill chambers, pumps and associated equipment. It also included \$8355 for salaries for the Waste Minimization Team and employee training. Using the previous 12 months as a baseline, the net savings were \$83,480. Two-thirds of the profit was divided among all employees. Each received a \$500 waste minimization bonus.

This reduction in waste and its associated costs had a positive financial impact on the company. The reduction also had a positive impact on the team concept of doing business and reinforced the efforts to involve operators and technicians in the problem solving process. Through its public awareness efforts, Plasticolors has strengthened its relationship with the local community.

Plasticolors encountered no significant obstacles, problems or constraints during its implementation of WASTEMIN.

Looking Ahead

Plasticolors goal for the future is to reduce waste and associated costs by 50 percent each year. The production of curb bumpers from a present waste and the waste of some nearby businesses is planned. The company is also working with customers to replace lead chromate pigments with organic compounds.

Plasticolors' considerable efforts have earned them well-deserved recognition. The State of Ohio and Ohio EPA applaud their efforts and encourage others to meet or exceed their high standards.

For More Information

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This is the fourteenth in a series of fact sheets Ohio EPA has prepared on pollution prevention. For more information, call the Office of Pollution Prevention at 614/644-3469.

The Office of Pollution Prevention was created to encourage multi-media pollution prevention activities within the state of Ohio, including source reduction and environmentally sound recycling practices. The office analyzes, develops, and publicizes information and data related to pollution prevention. Additionally, the section increases awareness of pollution prevention opportunities through education, outreach, and technical assistance programs directed toward business, government, and the public.