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# Pollution Prevention Supplemental Environmental Projects

## Kimble Mixer Company, New Philadelphia, Ohio

The Ohio Environmental Protection Agency (Ohio EPA) Office of Compliance Assistance and Pollution Prevention (OCAPP) has developed a number of case studies that provide information on the use of pollution prevention supplemental environmental projects (P2 SEPs) in Ohio enforcement settlements. Each case study describes the development of pollution prevention (P2) programs or projects that have been included in an enforcement settlement. The Kimble Mixer Company case study illustrates how P2 SEPs can be used in enforcement cases, and how the environment, the State of Ohio, and the company can benefit from P2.

### Introduction

To a manufacturing facility, waste generated from production processes represents lost raw material, lost capital, and an environmental burden. To Ohio EPA, waste generation often

identifies areas requiring regulation. When a company does not comply with environmental regulations, an enforcement action may be necessary. Ohio EPA can use P2 to gain added environmental benefit from an enforcement case, settle an enforcement case more quickly, return a company to compliance, and potentially reduce future oversight.

P2 is introduced during enforcement settlement negotiations and may be included in the Findings and Orders as a P2 SEP if agreed to by the company. P2 SEPs are environmentally beneficial projects that a facility agrees to perform in exchange for a penalty mitigation. OCAPP can assist enforcement staff in developing a P2 SEP and can help the company identify P2 programs or projects that can be used for a P2 SEP. OCAPP can help a company evaluate their waste streams and production process(es), then use P2 techniques to reduce generation of waste and go *beyond* compliance.

### Facility Description

Kimble Mixer Company (Kimble) was founded in 1994 and has manufacturing plants located in Midvale and New Philadelphia, Ohio. Kimble began manufacturing and assembling rear discharge concrete mixers using their own design engineering capabilities. Kimble employs approximately 100 employees. Annual sales are approximately \$8.5 million.

### Enforcement Settlement

In April 1996, Kimble installed and began operating a finish paint booth and a sandblasting operation. The company's sandblasting operation was operated functioned without a required permit or the best available technology.

Of the \$40,500 civil penalty, a maximum of \$10,000 was credited to Kimble for completion of a pollution prevention study at both the Crooked Run Road site and Kimble Fabricating Company, located in Midvale. The study assessed pollution reduction and recycling opportunities at these facilities. Ohio EPA reviewed and approved the study. If Ohio EPA determined that the total cost of the study was less than the amount of the mitigation, the difference would be applied to the civil penalty.

### Implementation and Results

The pollution prevention team at Kimble Mixer Company targeted four areas for pollution prevention improvement:

- 1) office/plant recycling;
- 2) solvent management;

### Kimble P2 SEP Activities

- Improved recycling program in manufacturing plants and painting operations.
- Improved clean up procedures for painting operations to eliminate excess thinner usage.
- Increased scrap steel and aluminum recycling program.
- Identified methods to reduce oil leaks and spills.
- Identified measurements to gauge progress of P2 and recycling efforts.

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3) manufacturing waste management (scrap steel and aluminum); and

4) bulk oil usage and spillage.

## Office/Plant Recycling

The assessment showed that, although the office participated in recycling efforts, not enough recycling bins were provided for the plant and paint operations to effectively support recycling. The team researched how many recycling containers were needed, where to put the containers, and what kind of containers to use. The team saw recycling as a way to provide a safer and cleaner work environment and divert wastes from the landfill. The cost for the recycling program was estimated at:

- 20 recycling containers at \$85.00 = \$1,700
- 5 labor hours per week to manage at \$60.00 per week
- Total annual cost to maintain the program = \$3,120

The team believed that the project would be economically feasible. The success of the program would be measured by the amount of recycled material removed from Kimble.

## Solvent Management

An assessment of solvent management showed an annual cost of \$3,120 for removal of 39 55-gallon drums of used solvent. Kimble purchased 40 55-gallon drums of thinner during the same time frame. The thinner is used to clean paint guns and paint lines, as well as to clean up overspray. The used thinner is then recycled and reused as fuel by Chemtron Company. This procedure was not changed since it is already economically feasible and

environmentally beneficial. The team examined clean up procedures to eliminate any excess thinner usage.

## Scrap Steel and Aluminum Recycling

The team assessed scrap steel and aluminum recycling and determined that the program could be improved by adding a 20-yard trash hopper for aluminum recovery at a cost of \$45.00 per pick up. Assuming four pick-ups per year, the total annual cost for the hopper would be \$180.00. 500 pounds of scrap aluminum at 40 cents per pound would have to be generated to pay for this program. Kimble generates sufficient scrap aluminum to cover this cost. Scrap steel is picked up monthly at a cost of \$45.00 per pick-up, and the scrap steel price is approximately \$100 per ton which, on the average, generates \$1,000 per hopper pick-up. This program was also determined to be economically feasible and environmentally beneficial.

## Bulk Oil Usage and Spillage

The P2 team reviewed bulk oil and spill management and found that oil spills and associated costs could be minimized through training and spill clean-up equipment. Spills are generally caused by overfilling and or leaks during production or service. The team would need to outline specific clean-up and disposal procedures for further improvements. Improvements could be measured by the amount of clean-up material purchased from year to year.

## Discussion and Conclusions

Kimble's P2 team reviewed many of the waste generating processes and their recommendations enabled the company to improve recycling programs to reduce the amount of waste requiring disposal, and in a cost

effective manner. Kimble was also able to institute new recycling programs for scrap steel and aluminum that were both economically feasible and environmentally beneficial. The team also identified ways to reduce waste generated from spills of solvent and oil.

Ohio EPA recognizes the environmental challenges Kimble faces as a growing business. Ohio EPA believes that facility improvements made as a result of the P2 activities completed through the enforcement settlement will help Kimble better meet these challenges.

## Further Information

Additional information on using P2 in enforcement settlements is located on OCAPP's P2 SEP Web site at: [www.epa.state.oh.us/opp/p2regint/p2sep1.html](http://www.epa.state.oh.us/opp/p2regint/p2sep1.html). You can also contact your inspector at the appropriate District Office or OCAPP at 800-329-7518 to discuss P2 SEPs or how they may apply to your situation.