

Case Study: Performed Line Products Company

Location:	Albemarle, NC (Stanly County)
Industry:	Metals Finishing/Forming (SIC 3496)
Pollution Prevention Application:	Process Modification/Substitution
Annual Savings:	\$183,591
Payback Period:	5.6 months
PPP Challenge Grant Awarded:	\$20,000
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Background

Performed Line Products Company manufactures line hardware for telephone and light poles. Because of the high treatment cost and liability involved with solvent-based cleaners and adhesives, the company investigated the use of water-based alternatives.

Waste Reduction Activities

- By changing to a water-based adhesive system, Performed Line eliminated the use of solvent-based rod bonder on its glue/grit lines. However, water-based adhesives proved to be harder to cure, and the gas burner curing system had to be replaced. An infrared curing system is now used to dry the adhesive at rates needed for production. In addition, good ventilation is essential with water-based adhesives for higher production rates.
- On over half of the 12 forming lines, water-based drawing lubricants and an in-line cleaner were substituted for petroleum-based lubricants and a solvent cleaner. Not all lines have been converted because of a difficulty with product scouring from the water-based lubricants. Although Performed Line has worked with numerous vendors to find a water-based lubricant that will not scour the rods, the company has yet to find one that will work.

Waste Reduction

During 1991, when only 3 of the 12 forming lines were using the water-based system, 69,003 pounds of solvent were eliminated with the replacement of the previous rod binder. Trichloroethylene and solvent-based grit binder have been reduced by 7,825 and 27,673 pounds, respectively. Even greater reductions are expected in subsequent years.

Annual Savings

With \$105,500 in cost reductions for solvent-based material, \$42,113 to purchase the water-based replacements, and \$78,092 in treatment costs reductions, the company has annual savings of \$225,705. At a cost of \$43,887 for the cost of the infrared system and other modifications, a payback of about 0.5 years is estimated.