

**New York State  
Environmental Investment Program  
Capital Project Summary**

**Tompkins Metal Finishing, Inc.**

**Project Background**

Tompkins Metal Finishing, Inc. is located in Batavia, New York. The company performs various metal finishing operations (electroplating and electroless plating), serving approximately 1,100 companies, including some major local companies. Metal finishing, when taken as a whole, is one of the largest users of many toxic chemicals in the country. Electroplating alone is the second largest end user of nickel and nickel compounds and the third largest user of cadmium and cadmium compounds. Electroplating also accounts for a substantial amount of chromium use in the United States. Ultimately, this industry is responsible for managing large amounts of hazardous materials. The primary waste streams at metal finishing facilities are rinse waters and wastewater treatment sludge.

**Project Description**

Through this project, Tompkins installed a wastewater recycle system designed to recover, treat and reuse 70 percent of the rinse waters generated. Using reverse osmosis and microfiltration technology, the system was designed to reduce the company's use of various treatment chemicals and disposal costs while saving the company money by reducing its purchase of treatment chemicals and lowering its discharges and disposal volumes.

**Project Results**

The project was very successful. The new system was installed on time with few complications. Tompkins is now:

- recycling 4 million gallons of water per year (out of 6 million gallons per year total consumption)
- reducing its use of caustic soda by 72,600 lbs. annually, exceeding the target of 54,500 lbs.
- completely eliminating its use of caustic soda membranes (which had to be disposed of as hazardous waste), exceeding the target of 6,295 lbs. annually
- reducing its use of sulfuric acid by 26,000 lbs., exceeding the target of 20,000 lbs. annually.

The waste water treatment sludge reduction was the last stage of the project. As Tompkins proceeded with implementation, it began to realize that by installing a \$55,000 sludge dryer and a \$36,000 evaporator, which were not included in the original project, it could cut its sludge production by much more than the original target. Both items were installed and are operational and as a result, the company expects to reduce its production of sludge by more than 5,700 lbs. per year.

As a result of this project, Tompkins Metal Finishing is a far more efficient company. Combining the reduced purchasing of chemicals, reduced waste treatment and disposal costs, and reduced regulatory costs, the company exceeded its target, realizing \$100,000 per year in operational savings.

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<b>Contractor:</b>	Genesee County Economic Development Center	<b>NYS EIP Investment:</b>	\$138,000
<b>County:</b>	Genesee	<b>Contractor Match:</b>	\$145,800
<b>ESD Region:</b>	Finger Lakes	<b>Total:</b>	\$283,800
<b>ESD Contact:</b>	518/292-5340	<b>Completion Date:</b>	November 2008