

Success Story

NYSDEC 

FACT SHEET

Number 11

November 1990

Hazardous Waste Reduction

Additive Circuits

West Lane

Aquebogue, New York 11931

Contact: Terry D. Hulse, Environmental Affairs Manager, (516) 722-4100

The Additive Circuits Division of the AMP + AKZO Corporation developed a process to recover and reuse chemicals from its electroless plating operation.

Background:

Additive Circuits of AMP + AKZO Corporation makes printed circuit boards for electronic devices by adding copper to a circuit pattern formed by applying a plating resin to an adhesive-coated fiberglass laminate board. The electroless copper bath, employing chemical energy, coats only the circuit pattern.

In the plating bath, ethylene diamine tetracetic acid (EDTA) keeps the copper in solution and formaldehyde provides the chemical energy.

Improved Process:

Additional sodium hydroxide and formaldehyde are added to the plating bath overflow to recover the copper, which is then dissolved for reuse by a sulfuric acid/hydrogen peroxide solution. Up to 99 percent of all copper purchased in 1988 was reused, saving the company \$100,200 per year.

EDTA is precipitated into crystals which can be washed, dissolved in sodium hydroxide and reused, saving \$125,000 per year.

Benefits:

- Reduced cost of raw material.
- Reduced waste disposal costs.
- Improved worker operations and safety.

New York State Department of Environmental Conservation
Mario M. Cuomo, Governor Thomas C. Jorling, Commissioner

Hazardous Waste Reduction Programs

It's the law

The New York State Department of Environmental Conservation (NYSDEC) emphasizes reduction of hazardous waste generated by commercial and industrial enterprises at the source on the basis of a four-part waste management hierarchy established in 1987 in the Preferred Statewide Hazardous Waste Management Practices Hierarchy Law.

Technical assistance

To help commercial and industrial enterprises in New York State comply with the laws for managing hazardous wastes, DEC's Division of Hazardous Substances Regulation has developed technical assistance programs and a series of publications, available upon request. Technical personnel are available to visit individual plants and to present information to trade and professional associations. DEC program staff also provide telephone assistance for industries, using up-to-date waste reduction information through a computerized bibliographical clearinghouse.

EFC programs

In addition to DEC's programs, the New York State Environmental Facilities Corporation (EFC), a public benefit corporation, is actively involved in providing on-site technical assistance. EFC helps small and mid-sized industries comply with regulations and apply waste reduction and waste treatment technologies.

Annual conference

DEC cosponsors an annual hazardous waste reduction conference in Albany, where participants can learn about techniques for reducing and recycling hazardous wastes. DEC is publishing a series of success stories to recognize companies that have achieved significant reduction of hazardous wastes.

For more information

- on DEC's technical assistance programs for industry, contact:
Bureau of Pollution Prevention
NYSDEC, 50 Wolf Road
Albany, NY 12233-7253
(5 18) 457-6072
- On the annual Hazardous Waste Reduction Conference, contact the same office.
- On the services available from EFC, contact:
Industrial Materials Recycling Program
NYS Environmental Facilities Corporation
50 Wolf Road
Albany, NY 12205
(518) 457-4138



Division of Hazardous Substances Regulation