

DIRECT ASSISTANCE PROGRAM



CASE STUDY

NYSP21 Evaluates Wastewater and Hazardous Waste Reduction Opportunities

Located in Huntington Station on Long Island, E. C. Sumereau & Son (Sumereau) specializes in providing specialty platings and anodizing for military, aerospace, and electronics industries. The company caters to a wide range of precision-based applications, which include plating for prototype development.

Challenge

Sumereau generates wastewater, which is primarily comprised of rinse water from the various metal finishing operations. Approximately 20,000 gallons/year of wastewater is shipped off site annually as hazardous waste (F006). The high costs associated with the disposal of wastewater prevents expansion of production and company growth. The quantity of waste defines Sumereau as a Large Quantity Generator. Sumereau would like to explore opportunities to reduce the amount of hazardous waste generated along with the costs associated with managing and disposal of the waste.

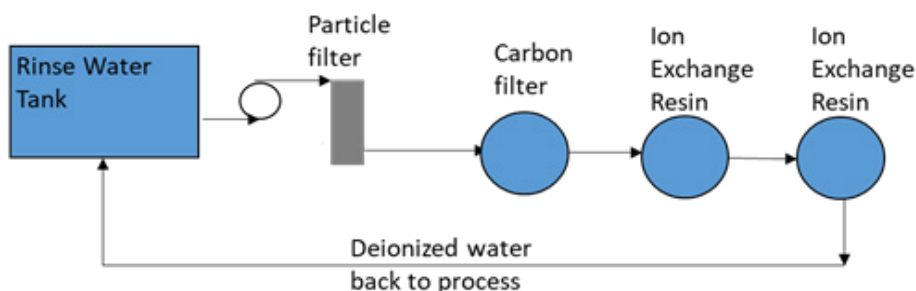
Solution

Sumereau requested that the New York State Pollution Prevention Institute (NYSP21) explore cost effective opportunities to reduce hazardous waste from the plating and anodizing operations. NYSP21 conducted a two-day on-site assessment where the plant layout, production process, plating tanks, and tank volumes were all documented to better understand the current, baseline situation. NYSP21 then identified opportunities for hazardous waste reduction, including separation of non-hazardous and hazardous waste streams, reducing the amount of rinse water utilized in the cleaning operation, and evaluating distillation, membrane, and ion exchange technologies for water recovery. After the opportunities were evaluated, NYSP21 calculated the expected impacts on hazardous waste amounts and economics.

Results

NYSP21 identified several options for Sumereau to consider. The simplest and most cost effective option was the purchase of fine mist spray nozzles that utilize less water, but rinse the parts as effectively as the current spray rinse process. The improvement option with the highest projected savings was the implementation of separate ion exchange systems on four lines in the aluminum processing area which would potentially reduce hazardous waste by 50%. The estimated payback to install ion exchange is 1 year.

Ion Exchange to Recycle Rinsewater



Testimonial

"Thank you to NYSP21 for the outstanding support providing expert advice to reduce the amount of hazardous wastewater generated along with cost-reduction initiatives associated with the managing and disposal of the waste. NYSP21 provided valuable insight into the implementation of cost-effective wastewater solutions to protect the environment. We are grateful for the outstanding support and the opportunity to partner with NYSP21."- **John LaRocca, President; E.C. Sumereau & Son**

CHALLENGE

- Sumereau would like to explore opportunities to reduce the amount of hazardous waste generated along with the costs associated with managing and disposal of the waste

SOLUTION

- NYSP21 conducted a two-day on-site assessment
- NYSP21 recognized opportunities for hazardous waste reduction
- NYSP21 evaluated the impacts on the hazardous waste amounts produced and associated cost

RESULTS

- NYSP21 identified a simple and cost effective option of purchasing fine mists spray nozzles that utilize less water, but clean the parts as effectively as the current spray rinse process
- The improvement option with the highest projected savings was the implementation of separate ion exchange systems on four lines

NYSP21 PARTNERS



New York Manufacturing Extension Partnership

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For more information please contact us:

111 Lomb Memorial Drive, Bldg. 78
Rochester, NY 14623

Tel: 585-475-2512
Web: nysp2i.rit.edu
E-mail: nysp2i@rit.edu

