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Why Pollution Prevention Still Matters for Manufacturers

Pollution prevention is a term you do not hear that often as it has now been replaced by sustainability. However, the fundamental approach of preventing pollution rather than fixing problems resulting from pollution is essential for both efficient, economically viable manufacturing, and addressing many environmental problems. Since 2008, the New York State Department of Environmental Conservation has provided funding through the New York State Pollution Prevention Institute (NYSP2I) to help New York businesses reduce their environmental impact, save money, or grow their customer base by promoting proven environmental performance or improvements. A MACNY member since 2016, NYSP2I headquartered on the Rochester Institute of Technology campus in Rochester, provides direct assistance to businesses in several areas:

- Pollution prevention problem identification, reducing environmental “footprint” of process or facility
- Solution evaluation for reducing toxicity and waste, reducing energy, and conserving and recycling water
- Product testing & evaluation, including environmental & energy impact evaluations, assessments of market viability and life cycle, and competitive product benchmarking
- Sustainability as a competitive advantage, such as supply chain assessments and development of frameworks for management systems; sustainable sourcing and procurement policies; and supplier tracking, documentation, and sustainability metrics

- Food waste reduction through consultative advice, self-assessment tools, and applied research to reduce and recover food (organic) resources

Over the years, NYSP2I has completed 220+ assistance projects with NYS companies including several MACNY members. Business clients of NYSP2I cite confidentiality, the fact that experienced industrial engineering staff at NYSP2I lead and perform all the project work, and the very small cost contribution from company participants as the key factors in deciding to take advantage of the program. Early in the program’s history, NYSP2I worked with Welch Allyn to quantify the environmental impacts of three versions of its disposable blood pressure cuffs in order to determine environmental preference, identify areas for improvement, and understand the impacts of disposal. Through NYSP2I’s Life Cycle Assessment (LCA), the dematerialization and material choices made by Welch Allyn’s product designers were validated. Welch Allyn used the LCA results to maintain and increase market share in the industry.

Xylem, Inc. also utilized NYSP2I to assess its water use and paint line waste at its Auburn facility. After an on-site review of the operations, NYSP2I provided Xylem with water reuse, recovery, and rainwater harvesting options as potential water reduction opportunities. NYSP2I’s assessment helped Xylem choose the most cost effective water recovery option.

It makes sense, both financially and environmentally, to reduce materials and energy input, minimize the amount of waste that must be sent for treatment and disposal, and make sure the wastes can be reused or disposed of easily and without harm to the environment. Pollution prevention is an essential component of sustainability and an important way to reduce costs for extra raw materials, waste disposal, and waste treatment systems. Wherever you are in your sustainability journey, NYSP2I is resource funded by NYS tax dollars that can help your business gain new knowledge to solve current or future environmental challenges or how you leverage sustainability to gain a competitive edge with the products you design and manufacture. For more information visit <https://www.rit.edu/affiliate/nysp2i/>.

If you would like to be introduced to NYSP2I, feel free to contact Cindy Oehmigen, Director of Energy and Corporate Services at MACNY – coehmigen@macny.org.

Chuck Ruffing leads a team of 15+ full time staff in delivering pollution prevention information, research and direct assistance to NYS businesses and communities. Prior to joining NYSP2I, Chuck held various positions at Eastman Kodak Company spanning 20 years, including Vice President of Health, Safety, Environment and Sustainability at Eastman Kodak Company. Chuck has a B.S. in Chemistry from St. Joseph’s University in Philadelphia, and a Ph.D. in Inorganic Chemistry from the University of Illinois.