POLLUTION PREVENTION IN RHODE ISLAND
Case studies of the Rhode Island On-Site Technical Assistance Program

Electronics Mfg.
Oily Wastewater

Parts manufacturer uses ultrafiltration to reuse compressor blowdown.

Industry \ Contact
SIC Code: 3451 Electronics Hardware Manufacturer, Rhode Island.
Contact: Company #55 - Vemaline, Inc.

Technology Description
The company manufactures metal and molded plastic parts, using a variety of finishing processes. It employs about 35 people.

The company had been shipping out one to two drums per week of oil-contaminated water resulting from an air compressor blowdown. With assistance from DEM’s Pollution Prevention Program, a small ultrafiltration (UF) unit was installed to allow the company to concentrate the oil. The permeate (clean water) is added to a vibratory system to replace evaporation losses.

Feedstock Materials
Not applicable

Wastes
55 gallons/week of oil-contaminated compressor blowdown

Costs
Infinitex Splitter Ultrafiltration unit: $6,000

Operation \ Maintenance
This system requires about one hour/week labor, and $300/year membrane replacement.
Savings
Not applicable

Payback Period
Undetermined. Avoided costs may have been significant.

Impact
The company has been off the city sewer system since May 1994. It can now avoid discharging air compressor blowdown to the municipal sewage treatment plant.

Initiating a pollution prevention program led to improvements in the way the company handles chemicals, including more efficient labeling and storage of clean and used oils and cleaners.

Switching to a cleaner manufacturing process has made the company eligible for economic development incentives offered by local municipalities.