

# 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.