

POLLUTION PREVENTION

IN RHODE ISLAND

Case studies of the Rhode Island On-Site Technical Assistance Program

Coatings Manufacturing Oil & Speedi-Dry

Equipment upgrade reduces hazardous waste generation

Industry \Contact

SIC Codes: 3079, 3081 Coatings Manufacturer, Rhode Island.

Contact: DED #1

Technology Description

The company is primarily engaged in the manufacture of polytetraflouroethane coatings and tapes, as well as pressure-sensitive coatings. The company employs 50 people at this facility.

In 1988, management at the facility purchased 385 gallons of hydraulic oil and 1,800 pounds of Speedi-dry to soak up spilled oil. They also manifested 385 gallons of waste oil and 946 pounds of oil-contaminated Speedi-dry for off-site disposal. The oil is used to lubricate machinery during routine manufacturing operations. After receiving a voluntary pollution prevention assessment by the Rhode Island Department of Economic Development's Technical Assistance Program, the company replaced existing motors on the production machinery with new electrical motors containing sealed bearings. This change achieved a 60% reduction in purchases of hydraulic oil. In addition, the amount of waste oil manifested for off-site disposal by the facility has been reduced by almost 50%. The facility has also reduced its purchase of Speedi-dry by 30% annually. It is significant to note that production in 1988 increased by 20% over previous years' production levels.

Feedstock Materials

400 gallons of hydraulic oil per year

Speedi-Dry

Waste Releases & off site Transfers

946 lbs. of Speedi-dry contaminated with 385 gallons of waste hydraulic oil.

Costs \ Capital

3 electric motors: approximately \$10,000

Operation \ Maintenance

Operation costs for the new electric motors parallels existing motors

Savings

Annual savings of 220 gallons in hydraulic oil: \$610

Annual disposal savings of 220 gallons in waste oil: \$295

Payback Period

Approximately 5 years

Other

Production increased by 20% from previous levels

Impact

The company has reduced the amount of waste oil manifested for off-site disposal by almost 50%. The company has also reduced its annual purchases of hydraulic oil by 60%. It is also significant to note that production was up 20% from the year previous to the equipment upgrade.

Although a reduction in the amount of soiled Speedi-Dry being generated had not yet been seen in the facility manifest, it is estimated that the facility has reduced its purchases of Speedi-Dry by 30%-35%. Management of the facility feels that the majority of the Speedi-Dry used is wasted through overuse and estimates that, by carefully monitoring its uses, management estimates that they may be able to reduce purchases and disposal of the material by another third.