



# ShopTalk

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## Toxic Reduction Engineer Exchange = Great Results

A new project called Toxic Reduction Engineer Exchange teamed Ecology toxic reduction engineers with businesses that were able to save \$350,000 per year and cut generation of hazardous waste by 42 million pounds. Ecology's engineers identified how the companies could use free or low-cost techniques to reduce waste and save money.

Many companies lack time to investigate these techniques and calculate cost savings. The Ecology team spent up to ten days on-site looking for ways to reduce waste and save money, then sent a summary report to the company.

The first test of this new approach showed how Industrial Plating Corporation of Seattle, the largest job-shop electroplater in

Washington, could save nearly \$250,000 in the first year of implementation by investing about \$40,000. This translated to significant reductions in both water consumption and hazardous waste generation. Facility manager Bob James said "Ecology's assistance made all the difference to us. Their report showing the potential cost savings really inspired our management to support pollution prevention. Now they don't want to stop!" Another project, also with a metal finisher, identified how to cut waste by 20 million pounds and save \$100,000 per year.

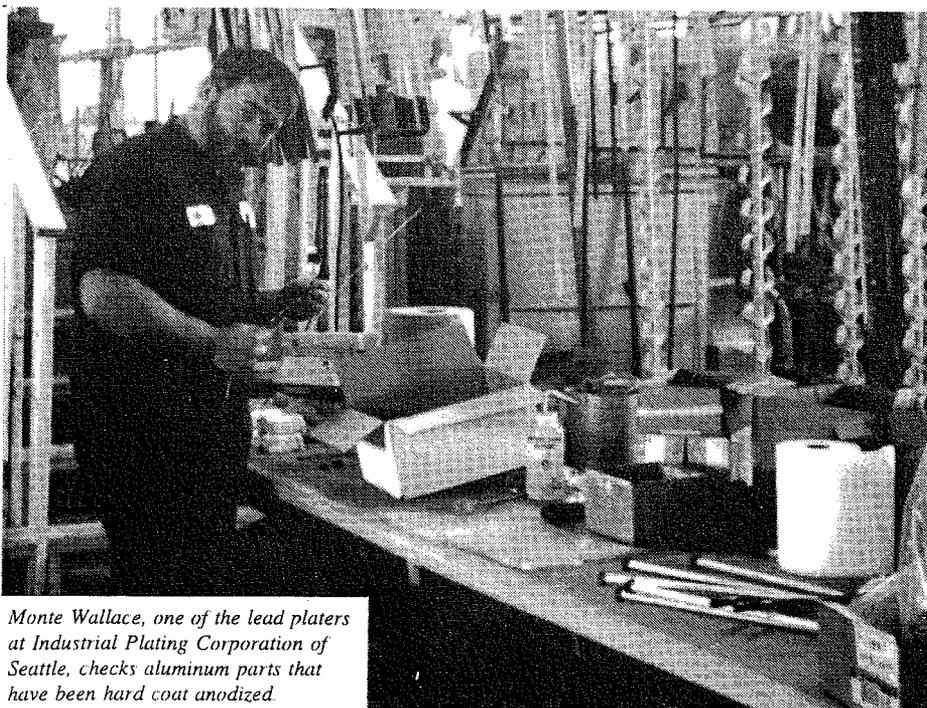
Success was achieved with these low-cost changes:

- Letting parts drip over process tanks so less fresh water is needed.

- Diverting storm water from waste water treatment.
- Installing double and triple countercurrent rinsing in plating lines.
- Using solenoid valves to regulate rinse flow so just enough water is used.

The Toxic Reduction Engineer Exchange came from an Ecology review of business pollution prevention plans. Analysis found that, generally, few waste reduction opportunities were actually taken. It was also found that there was especially high potential for waste reduction and cost savings in the electronic and metal finishing sectors.

Ecology will continue to provide detailed waste reduction assessments where the most benefit can be expected. For information on Toxic Reduction Engineer Exchange, call Christa Colouzis at (425) 649-7143.



Monte Wallace, one of the lead platers at Industrial Plating Corporation of Seattle, checks aluminum parts that have been hard coat anodized.

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## **Fluorescent Light Tube Recycler Opens in Seattle**

Looking for a convenient way to recycle your burned-out fluorescent light bulbs? In February, Seattle-based EcoLights Northwest opened the first fluorescent light tube recycling facility in Washington state.

Approximately ten million light tubes are "retired" each year in this state. These bulbs contain mercury that can be harmful to the environment and human health. Traditionally, businesses wanting to safely dispose of mercury-containing bulbs shipped them to a hazardous waste disposal facility or an out-of-state recycler. Now, local businesses have a lower-cost option for protecting the environment and employees recycling fluorescent tubes assures a generator is in compliance with regulations. "EcoLights exceeds the most stringent environmental standards for preventing the release

of mercury," says David Misko of Ecology. Businesses are pleased with the new service.

EcoLights Northwest accepts all types of fluorescent bulbs and other mercury-bearing items such as high-intensity discharge lamps, thermostats, thermometers, and lighting ballasts. They also recycle incandescent (regular, non-fluorescent) light bulbs, and offer on-site mercury vapor testing.

EcoLights charges an eight to ten cents per foot processing fee for fluorescent tubes. This is a bargain compared to the forty to sixty cents per foot cost of disposing of them as hazardous waste! The company can also provide transportation upon request for Yakima, the Tri-Cities, Spokane, and Western Washington.

For more information call EcoLights Northwest at (206) 343-1247, or visit their Web site at [www.ecolights.com](http://www.ecolights.com)

## **Environmental Cost Accounting: Could it Help You Save Money?**

At workshops held recently in Spokane and Tacoma, hazardous waste generators learned about a great tool that can help them save money: environmental cost accounting. A business can benefit by carefully tracking total costs of using or generating hazardous substances and the net benefits resulting from reducing these costs through pollution prevention. These costs and benefits are often hidden in "overhead" or "insurance." One firm reduced its insurance costs by \$34,000 by adopting pollution prevention techniques.

Workshops provided case studies, small group exercises, and

"hands on" training with computer software. Software demonstrated in the workshop helps firms identify costs and benefits and determines when implementing pollution prevention strategies makes economic sense.

To obtain copies of the guidance manuals and software used in the workshops, contact your Ecology regional office — see page 4 for phone numbers.

## **Ecology, Local Agencies Get It Together!**

Earlier this year, Ecology joined forces with local agencies to visit over a hundred businesses near Everett. The purpose: to make short, educational visits to show how to reduce and safely manage hazardous waste, prevent pollution, and reduce costs and liability. The Snohomish County Health Department, local fire departments, sewer departments, Puget Sound Air Pollution Control Agency, and Snohomish County airport coordinated with Ecology to meet with business people.

Businesses told Ecology they were glad they participated. Surveys were left at each business visited. 93 percent of the responses gave Ecology high marks for technical assistance, and 96 percent said they felt more comfortable working with Ecology since the visit.

Ecology also provides technical assistance visits upon request. To schedule a visit, contact a HWTR specialist at your Ecology regional office — see phone numbers listed on page 4.

### **Free Information**

To order, call (360)407-7472, or e-mail: [ecypub@ecy.wa.gov](mailto:ecypub@ecy.wa.gov)

- *Discussion Paper on PCB Dangerous Waste*, #97-415. How to comply with the *Dangerous Waste Regulations*, PCB disposal companies, Q's and A's.
- *Free Help for Businesses*, #96-R97. Benefits of pollution prevention, Ecology's hands-on help to business, etc.
- *Pollution Prevention Planning Guidance Manual*, #91-2R96. Environmental cost accounting worksheets for economic analysis of pollution prevention opportunities and risk analysis.

## Pollution Prevention Honored

Governor Gary Locke and Ecology Director Tom Fitzsimmons announced the winners of the 1997 Governor's Award for Outstanding Achievement in Pollution Prevention, September 15th at the Capitol. Governor Locke congratulated the winners for going beyond best available control technologies and seeking innovative ways to reduce pollution at the source. Winners included: **Busch Collision**, Issaquah, for leadership in the autobody repair industry; **Department of the Navy Puget Sound Naval Shipyard**, Bremerton, for the most improved government facility; **Fort Lewis Army Installation**, Fort Lewis, for continuing to implement pollution prevention opportunities throughout the post; **Intalco Aluminum Corporation**, Ferndale, for meeting its goal to "operate the plant with sensitivity to the envi-

ronment"; **Production Plating, Incorporated**, Mukilteo, a metal finishing shop, for making significant improvements in eliminating and reducing waste at the source; **Washington State Korean Dry Cleaners' Association**, Seattle, a 400 member organization, for its technical assistance education and outreach; and **Wrap Pack**, Yakima, a fruit wrap tissue producer, for eliminating volatile organic cleaning agents and keeping employees working all year. An honorable mention also went to **Broadway Dental Center** of Seattle, for minimizing hazardous waste entering the environment, researching developing equipment, and sharing knowledge throughout the industry.

Congratulations to all the winners. Keep up the great work!

## Hazardous Waste Generator Workshops Scheduled

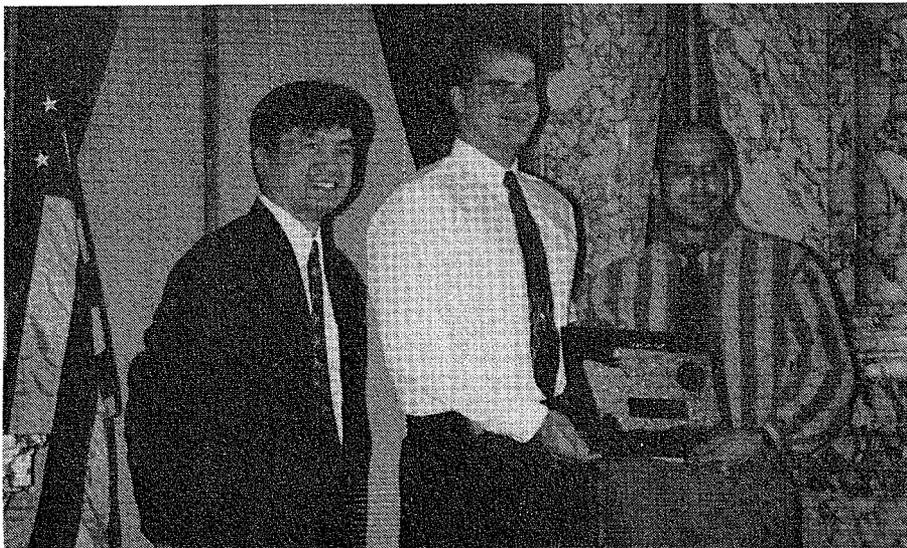
Ecology will be hosting a series of full-day workshops for businesses that generate dangerous waste. Topics include waste designation, container management, and annual reporting. A \$35 fee will be charged to cover the cost of room rental, materials, and lunch.

Workshops will be held during January and February of 1998, as follows:

- Jan 6 - Silverdale
- Jan 8 - Mount Vernon
- Jan 13 - Vancouver
- Jan 15 - Tacoma
- Jan 20 - Seattle
- Jan 22 - Bellevue
- Jan 27 - Spokane
- Jan 29 - Ephrata
- Feb 3 - Yakima
- Feb 5 - Tri-Cities

Don't miss this opportunity to have your questions answered in a casual, friendly atmosphere. Pre-registration is required. For information call (360)407-6718, or check our website: [www.wa.gov/ecology/hwtr](http://www.wa.gov/ecology/hwtr)

*Governor Locke presents Mark Wisley, Technical Director, and Shane DeCol, Pollution Control Technician, of Production Plating, Incorporated of Mukilteo, with an 1997 Governor's Award for Outstanding Achievement in Pollution Prevention.*



## Woodland Firm Benefits From Pollution Prevention

How can a manufactured home be made with minimal impact upon the environment and workers? Fleetwood Homes uses a materials approval process where "environmentally friendly" products are found, tested, and evaluated for use. Vendors were encouraged to

reformulate products to reflect concerns about toxicity and emissions. This process allowed them to switch to almost all water-based coatings and adhesives. A special painting system was also developed. The sprayline building has preheating lamps, spray booths

and paint drying by infrared lamps. Reduced emissions, storm water pollution prevention, and an excellent safety and environmental compliance record are some of the results. Fleetwood Homes won a Governor's Pollution Prevention Award in 1996.

## Questions and Answers

**Q Who should have an oil/water separator?**

**A** Any business that discharges oily or sludgy waste. Examples: Quick-lube stations, vehicle and heavy equipment repair garages, and businesses using steam or pressure washers.

**Q How do I know when my oil/water separator is dirty?**

**A** An oil/water separator needs occasional cleaning even if still draining and working properly. Efficiency is affected by buildup of settled solids, sludge, or oils. Inspect the plates in each chamber once a week. For cleaning, check the yellow pages under "Tanks - Cleaning." Septic-tank-only services aren't equipped for large quantities of oil.

**Q What should not go through a separator?**

**A** Antifreeze, because it is water-soluble and will not be captured by an oil-water separator. Degreasers and detergents because they can emulsify or dissolve oil so it won't float to the surface - and then can't be removed by the separator.

Fuels, alcohols, and solvents shouldn't go through a separator

because they can accumulate, create toxic conditions for sewage treatment plant personnel, and/or cause violent explosions. Oil/water separators are also not designed to treat heavy metal-bearing wastewater such as hot tank and cabinet washer solutions, pressure-wash water, metal finishing, plating or metal recovery water, or water-soluble machine coolant.

**Q How do I maintain my oil/water separator?**

**A** Oil and sludge can clog baffles or plates and pass through to the sewer - divert it away from your separator. Free-floating oils can be carefully vacuumed off with a wet/dry vacuum or removed with a skimmer. Another way is to place absorbent pads or socks in the inlet chamber, then wring out into a collection drum and reuse them.

Sludges are difficult to clean out and disposal is expensive. A catch basin, installed ahead of the separator, will trap solids. Shovel them into a collection drum before they reach the separator and have the material tested to determine if it's a hazardous waste. For more information, contact a hazardous waste specialist at your Ecology Regional Office - phone numbers are listed on this page.

## Ecology Contacts

Remember, your business is liable for all hazardous wastes generated. If you are uncertain about your responsibilities as a hazardous waste generator, call your nearest Ecology office and ask for a hazardous waste specialist. For information on reducing or recycling hazardous waste, ask for the toxics reduction staff, also at the following numbers:

*Bellevue:* (425) 649-7000

*Lacey:* (360) 407-6300

*Yakima:* (509) 575-2490

*Spokane:* (509) 456-2926

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## Shoptalk

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