HAZARDOUS WASTE AND TOXICS REDUCTION

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Shoptalk

A PUBLICATION FOR DANGEROUS WASTE MANAGERS

Autumn 2007
Vol. 17 No. 2
Pub. #07-04-002

Lean and Clean Succeed

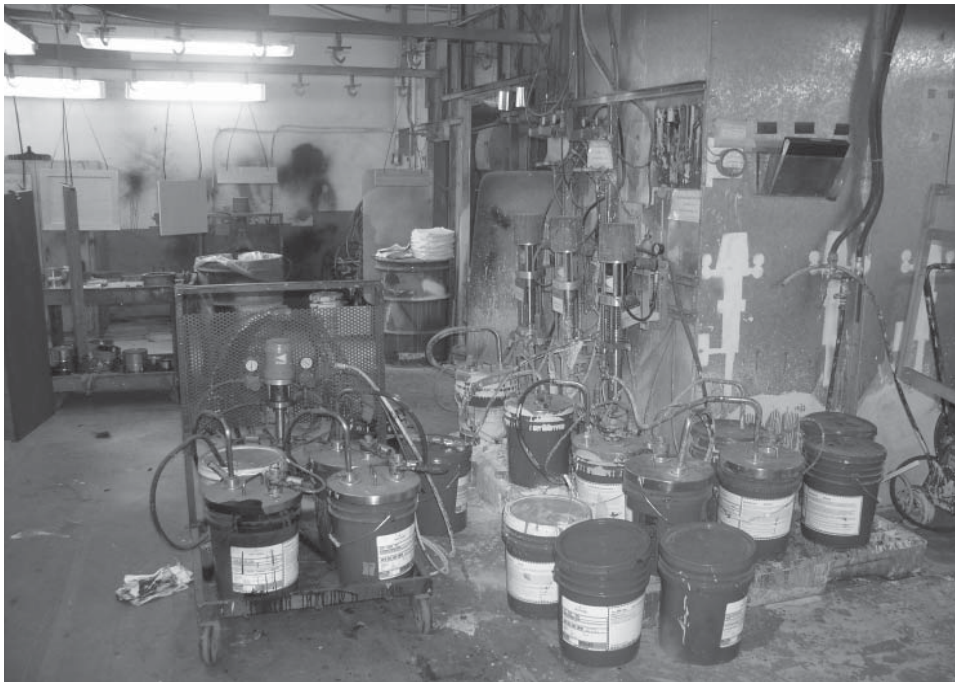
Profits go up when wastes and costs go down!

Can you increase productivity while reducing your environmental impact? Can you create an engaged, innovative workforce and improve health, ergonomics, and material flow at the same time? Can you reduce lead-time and simultaneously reduce hazardous waste and material inefficiencies?

Last year Canyon Creek Cabinet Company, Lasco Bathware, and Columbia Paint Company explored these questions. The results? The three companies together, will save $1.36 million each year. They also reduced their output of volatile organic compounds by 55,100 pounds, their dangerous waste by 29,000 pounds and their wastewater by 21,000 gallons. They will avoid using 68,700 pounds of hazardous substances and 12.6 million cubic feet of natural gas.

"This program pointed out environmental wastes that we'd never looked at previously and really pushed us to act on them," said John Earl, Canyon Creek's Environmental Manager. "Including the environmental components into value stream maps and the kaizens [see "Definitions"] was the best way to identify the waste and the opportunities for cost savings and waste reduction."

The Washington State Department of Ecology's (Ecology) Hazardous Waste and Toxics Reduction Program (HWTR) secured grant funding from the U.S. Environmental Protection Agency for the pilot projects. Ecology's partner in the projects, the Washington Manufacturing Services (WMS), is dedicated to making Washington manufacturers more competitive. The organization is the state's Manufacturing Extension Partner, linking manufacturers with local expertise and resources through affiliation with the National Institute of Standards and Technology.



Canyon Creek Cabinet Company's stain line, before the Lean and Environment project. To see this same stain line area after the project was completed, see photo on page 2.

Lean manufacturing is one of WMS's primary services. WMS provided lean assistance to the pilot projects while Ecology's toxics reduction staff added the environmental elements. Each pilot project company received a $24,000 grant to cover 80 percent of WMS's fee.

Canyon Creek, a wood cabinet manufacturing company in Monroe, already had a good environmental record. They use an environmental management system. They had already put several lean manufacturing

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Correction

The last issue of *Shoptalk* carried a photo of poor waste management. Unfortunately, since the product labels in the photo were legible, some readers might assume the problem lay with the product manufacturers. This was not the case. It was the waste handlers who were responsible. *Shoptalk* apologizes for the error and for any embarrassment this caused.

Why are you getting this newsletter?

See story on back page

Lean and Clean Succeeds, continued

projects into practice. In 1999, the company won a Governor's Award for Pollution Prevention. Still, Canyon Creek recognized there was room for improvement, particularly in their finishing process and in their amount of wood waste.

So, company employees, WMS experts, and toxics reduction specialists from Ecology formed a "Toxics Team" to address surface finishing, and a "Woodchuckers Team" to target one milling line. First, the teams assessed their areas for wasted motion and material and used the results to create "value-stream" maps that highlighted problem areas. Next, the teams held week-long improvement events targeted at specific problem areas.

Through the project, the company realized a 10 percent increase in first-pass quality yield rates. They reduced the product lead-time in one line by 24 percent. They also increased the manufacturing capacity by about 70 percent before reaching the State Title V air permit thresholds for volatile organic compounds. The company expects to save as much as $1.09 million per year from the process changes implemented during the pilot project.

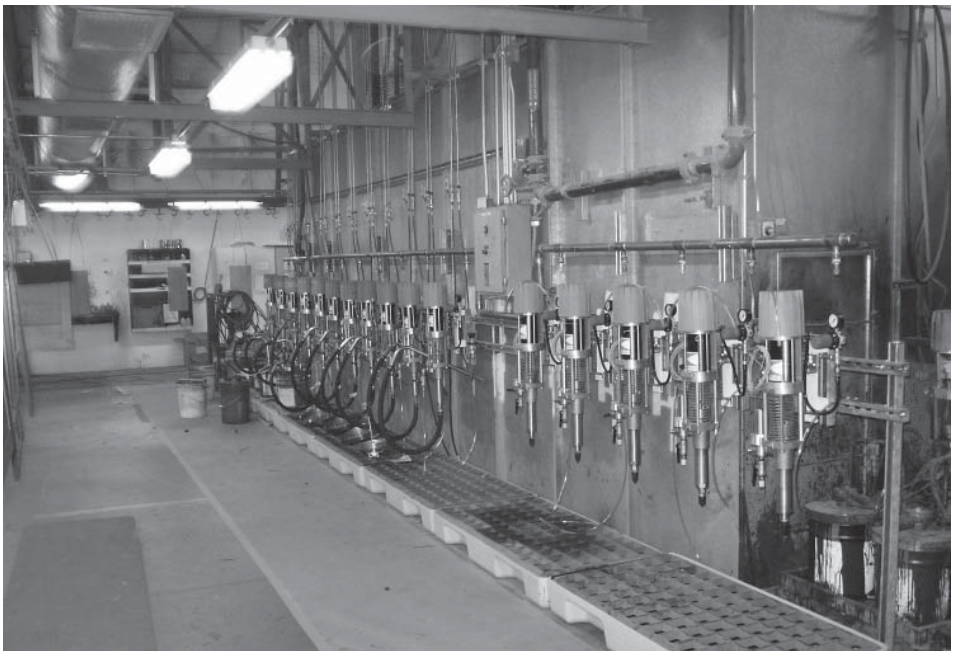
They invested $36,400 in labor for the kaizen events and $6,000 in fees for WMS. Although new equipment is not usually part of lean projects, the company decided to invest $215,000 for dedicated coating lines and new crosscut saws.

"The Canyon Creek project is an amazing demonstration of how improved environmental management can be integrated with improved productivity and efficiency to yield greater profit," said Jay Manning, Ecology Director.

Ecology has additional grant money to support businesses in doing lean and green work – up to $8,000 per company. If you would like to explore the lean and clean process, request grant funding, or both, contact Hugh O'Neill in Ecology, (360) 407-6354; or Nigel Moore in Washington Manufacturing Services, (425) 438-1146 ext. 104. WMS's Web site is www.wamfg.org

You can find the report on the Canyon Creek case study at www.ecy.wa.gov/biblio/0604024.html

This article features the project at Canyon Creek Cabinet Company. The next Shoptalk will cover results from the Lasco Bathware and Columbia Paint projects.



Canyon Creek Cabinet Company's stain line after the Lean and Environment project

Lean Definitions

Lean manufacturing: An approach to manufacturing that finds and eliminates efforts that do not add value to the finished product.

Kaizen: A week-long, hands-on, work effort for everyone involved in a particular process to develop improvements, try them out, and put them into practice.

Value stream mapping: Finding and documenting the work elements that add value to a finished product.

Leveling the Playing Field

Most businesses want to operate in a way that protects the environment. But a small number of companies try to gain a competitive advantage by not following the rules. This "un-level playing field" problem is a constant challenge for regulatory agencies.

About four years ago, King County and Ecology began working with colleagues in other agencies to coordinate work on these "troublesome sites." This Interagency Compliance Team now has more than 100 participants. They include the U.S. Environmental Protection Agency, the state departments of Ecology, Health, and Labor and Industries, the State Patrol, county and city code enforcement teams, water and air quality agencies, and more, with occasional assistance from prosecuting attorneys. The Team has a half-time coordinator and a secure Internet Web site to share material.

The Team conducts joint site visits, and each agency works to bring about the quickest and most efficient resolution to compliance problems. The Team succeeds by coordinating work, sharing information, and developing a compliance strategy for each site.

Regulatory agencies, including Ecology, prefer to work with businesses to achieve voluntary compliance on environmental, health, and safety regulations. But, when a business ignores regulations and gains an unfair advantage over responsible businesses in King County, the Interagency Compliance Team is an important resource for achieving regulatory compliance.

Bud Clary Chevrolet

Bud Clary Chevrolet in Longview offers sales, service, and auto body repair. In 2004, service manager Doug Dwyer and body shop manager Bob Byman began a hazardous waste reduction program. Within a year, the business reduced its regulatory requirements and saved money by using waste reduction measures available to many shops that do mechanical repair or painting.

According to Dwyer, "A lot of businesses might think waste reduction is going to be too hard to do. But often it isn't, and it can really pay off."

In 2004, Bud Clary's shops were painting 1,739 cars and generating 5,179 pounds of dangerous waste per year. Ecology's technical assistance staff provided him with a framework and guidance to carry out his program. Dwyer's paint supplier helped the shop's painters convert to paint equipment that uses small disposable reservoirs for the paint guns. These waste less paint and make mixing, spraying, and cleanup easier.

The company's waste disposal vendor helped Dwyer select parts, degreasers, and paint cleanup equipment that internally purify the thinner and non-hazardous degreasing solvent and return them to use. The equipment saves money through reduced waste disposal costs and buying less thinner and degreasing solvent.

By the end of 2005, Bud Clary Chevrolet's hazardous waste plummeted 47 percent to 2,456 pounds. This dropped the company into the conditionally exempt small quantity generator status and greatly reduced its regulatory and reporting requirements. The amount of waste dropped even more in 2006, while the number of cars painted rose 17 percent.

If you would like more information about this type of assistance through Ecology's Pollution Prevention Planning Program, or would like advice on how you can reduce your waste, call your regional office and ask to speak to the Toxics Reduction staff.

Illegal Discharge to Sewers Can Cost You

Ecology recently penalized companies in Skagit and King counties for illegally disposing dangerous waste to the sanitary sewer system. This type of illegal disposal seems to be increasing. Some dangerous waste generators may think the sink or a floor drain is a cheap and easy way to dispose of dangerous waste. But the practice is expensive in three ways – harm to workers, harm to the environment and cost of penalties.

All wastewater discharged to the sewer system must comply with local, state and federal standards to avoid damaging the wastewater treatment plant. Dangerous waste illegally sent to the sewer could harm sewer utility workers, kill the beneficial bacteria and damage the equipment.

Some sewer utilities will take properly treated chemicals. Each sewer utility sets its own limits for what can be disposed into their system. Dilution is not acceptable to meet allowable concentration limits because many chemicals end up in the biosolids at the treatment plant. Always check with your local sewer utility first to find out their guidelines. (Your sewer/water bill should have contact information.)

Discharge to a septic tank system is regulated as if the discharge was going directly to groundwater. This means no hazardous wastes, including medicine, can go into a septic tank.

You are responsible for determining what is in your waste and its hazards, and complying with the regulations. Also known as designation and characterization, these rules can be found in the *Dangerous Waste Regulations*, WAC 173-303-070 through -110. For more information, call your local Ecology regional office or visit www.ecy.wa.gov/programs/hwtr/manage-waste.html

Ask your fire department who you must notify locally in case of a spill. If dangerous waste does spill to a drain, contact your local sewer utility, the nearest Ecology regional office, National Response Center at (800) 424-8802, and the Washington State Division of Emergency Management at (800) 258-5990.

Spills and Federal Reporting Requirements

The last issue of *Shoptalk* explained the State of Washington's requirements on emergency notification for spills. There are also federal requirements for emergency notification that have been adopted by Washington state. You can find these in Section 304 – Emergency Release Notification of the Emergency Planning & Community Right-to-Know Act (SARA Title III).

Under Section 304, if you release certain chemicals you must immediately notify the Washington State Emergency Response Commission, your Local Emergency Planning Committee, and any other State Emergency Response Commission or Local Emergency Planning Committee that could be affected. (See below for contact information) Then you must follow up, in writing within two weeks. The written follow up must update the information, describe the actual events, and advise on medical attention needed for those exposed to the chemical.

You can find the chemicals that must be reported in the Title III Consolidated List of Lists on the U.S. Environmental Protection Agency's Web site at http://web-services.gov/lol/

If you release extremely hazardous substances (such as mercury), above certain amounts, you must also report this to the National Response Center. The Title III Consolidated List of Lists provides the reportable quantities in the "CERCLA RQ" column.

For more information on EPCRA reporting, visit Ecology's EPCRA Web page at www.ecy.wa.gov/epcra/index.html or call us at (800) 633-7585.

Keep this information handy:

National Response Center
(800) 424-8802

Local Emergency Planning Committee
www.ecy.wa.gov/epcra/lepclist.html

State Emergency Response Commission
(800) 258-5990 *(emergency notification only)*

Washington State Emergency Response Commission address (follow up reports):
Ecology - Community Right-to-Know Unit
PO Box 47659
Olympia WA 98504-7659

Q I hear Ecology won't be offering the dangerous waste management workshops in 2008. Where else can I find this type of training?

A Your best source for information specific to Washington state is the hazardous waste compliance staff at your local Ecology regional office. Here are some other sources for general dangerous waste and materials training. [*Note: This listing is for information only; it does not constitute an endorsement.*]

Washington State Department of Ecology www.ecy.wa.gov

Argus Pacific (in Western Washington) www.arguspacific.com/

Arnold & Associates (360) 697-5836 (a.m.)

Environmental Resource Center www.ercweb.com/home/

Lion Technology Inc. www.lion.com/

Mailing List Cleanup

We will be cleaning up the newsletter mailing list this year. If you are among those contacted and want to continue receiving *Shoptalk*, please complete and return the prepaid postcard. We will delete addresses that do not reply. If you have questions, call (360) 407-6740 or (360) 407-6745.

Why Am I Getting This?

Shoptalk is "A Publication for Dangerous Waste Managers." All businesses in certain industrial classification codes receive the newsletter as part of the services paid for by their annual Hazardous Waste Education Fee. The fee applies to all businesses that create even small amounts of dangerous waste.

Some readers may think their business does not create dangerous waste but that's not always the case. People may not be aware of the hazardous properties of some of the materials they use. Or, the company's auxiliary operations, such as fleet maintenance and building cleaning, may create hazardous waste.

If you have questions about the Hazardous Waste Education Fee, go to www.ecy.wa.gov/programs/hwtr/edfees/index.html or call Jeri Berube at (360) 407-6733.

If you think your business is in the wrong industrial classification code, contact the Department of Revenue at www.dor.wa.gov/content/contactus or call (800) 647-7706.

If you do not want to continue to receive *Shoptalk*, contact Cathy Bouge at (360) 407-6745, e-mail: cbou461@ecy.wa.gov. If you would like to switch to the electronic version go to www.ecy.wa.gov/programs/hwtr/shoptalkonline/ and subscribe there.

Department of Ecology

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

Bellevue: (425) 649-7000
Lacey: (360) 407-6300
Yakima: (509) 575-2490
Spokane: (509) 329-3400

If you need this information in an alternate format, please call the Hazardous Waste and Toxics Reduction Program at (360) 407-6700. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call (877) 833-6341.

Shoptalk is produced by the Washington State Department of Ecology's Hazardous Waste and Toxics Reduction Program.
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Subscriptions: Visit *Shoptalk* online at *www.ecy.wa.gov/programs/hwtr/shoptalkonline* and subscribe to this free newsletter while you're there.

Shoptalk is run on an alcohol-free press using vegetable-based inks on 100% post-consumer paper, processed chlorine-free.

Washington State
Department of Ecology
Hazardous Waste and
Toxics Reduction Program
PO Box 47600
Olympia WA 98504-7600

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