

The Small Business Resource

Vol. 5 No.1

A Publication of Ohio EPA, Small Business Assistance Office

March 2002

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Pollution Prevention Issues

What is Waste Costing Your Company?

When you ask a small business owner this question, some of the usual answers include:

- It costs our company \$200 to dispose of a 55-gallon drum of hazardous waste;
- Our solid waste disposal cost is just \$60 a ton;
- Our wastewater disposal costs are only 10 cents per gallon; or,
- Our parts cleaning solvent is replaced every month for \$50.

Most companies can calculate their annual waste disposal costs easily. However, disposal costs are just the tip of the iceberg because they account for only about 15 percent of a company's total waste costs. And, just as an iceberg sunk the Titanic, the hidden waste costs could be sinking your company's profit margins.

Unfortunately too many companies consider only disposal costs as their total waste costs. By focusing all their resources and basing business decisions on reducing disposal costs, these companies are missing other significant cost-saving opportunities.

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Pollution Prevention Resources

This issue of the Small Business Resource focuses on pollution prevention and contains ideas to help you find ways to reduce waste at your business. It also highlights several resources available to help you make changes in your business to improve processes and efficiency.

Today, more than ever, it's a good idea to find ways to improve your operations. Not only can pollution prevention save you money, it can also help reduce the regulatory burden for your company.

The Small Business Assistance Office (SBAO) can help you get the resources you need to start pollution prevention activities at your business. In addition, Ohio EPA's Office of Pollution Prevention (OPP) offers free, non-regulatory technical assistance to businesses interested in reducing waste. More specific information about the services of OPP is included in this newsletter. You can reach the SBAO at (800) 329-7518 or OPP at (614) 644-3469.

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They also may be missing an opportunity to reduce their regulatory burden. Why should you know your company's total waste costs? For the same reason you should know any other business costs: so they can be managed and reduced.

Understanding your company's processes is the crucial first step in determining your total waste costs. You need to look at raw material, labor and waste management costs for each step in the process. Commonly when a company calculates its waste cost, it overlooks raw material and labor costs.

You don't need to quantify all these costs down to the nearest penny. The goal is to more broadly look at your total waste costs and use this information in your decision making. By identifying the total waste costs for your business, you can develop more effective strategies to reduce these costs and save money.

If you have questions about calculating the total waste costs for your business, contact Ohio EPA's Office of Pollution Prevention at (614) 644-3469 or Kirk Nofzinger of the SBAO at (800) 329-7518.

Reducing Cleaning Solvent Waste

Many small business owners use parts-washing units for cleaning equipment. By reviewing your parts-cleaning equipment and practices, you may be able to increase your efficiency and save money. This article provides some options for you to consider in improving your parts-washing activities.

Equipment Management

- Negotiate your service contract so solvent change-outs fit your use schedule, especially if you have seasonal fluctuations in your shop's solvent needs. Remember, you incur

costs and liability with each shipment of waste.

- Segregate cleaning into two stages, so each has a dedicated washing unit. Using two units extends the usefulness of the solvent.
- Use parts-washing units equipped with filters that will keep the solvent cleaner longer. Add-on accessories are available from your equipment vendor.

Equipment Operation

- Think about when parts need cleaning and when they do not. Each time you use the parts-washer, your solvent becomes contaminated, shortening the solvent's useful life. If only interior surfaces need to be cleaned, avoid cleaning exterior surfaces that can add dirt, grease, or paint and overburden your solvent. If extra surface cleaning is unavoidable, scrape or wipe off dirt before putting the part into the solvent.
- Splashing solvent and dragging out dripping parts depletes your solvent reservoir and makes a mess. Clean each part carefully and use drain racks to save solvent and avoid an unnecessary cleanup.
- Cover and turn off circulating sinks to conserve energy and keep solvents from evaporating.
- The appearance of used solvent may not be a good indicator of the solvent's ability to clean. Monitor the solvent to determine its maximum useful life then modify your change-out schedule to get the most out of your solvent.

Inventory Management

- Limit access to solvent supplies. Keeping and displaying records on solvent use may be helpful for

controlling waste, especially in an operation with a large workforce.

- Consider using a central cleaning station. When using individual workstations, weigh their potential for accidents, exposure and waste generation against their convenience and efficiency.

Pollution Prevention Resources

If you want more information on pollution prevention opportunities for your business, you can get a free publication catalogue from Ohio EPA's Office of Pollution Prevention. This catalogue lists easy-to-understand fact sheets, guidance documents and vendor information. Contact OPP at (614) 644-3469 for your free Copy.

Ohio EPA also has two pollution prevention videos available on loan. If you would like to get a copy of either of these, contact the SBAO at (800) 329-7518.

An Ounce of Prevention: The Advantage of Reducing Waste. Learn general strategies for reducing waste at your business.

Profit from Waste: New Strategies for Vehicle Servicing. Pollution prevention ideas for the auto service industry.

Economic and Product Development

ETC² Teams Up With U.S. EPA and Small Businesses

United States Environmental Protection Agency (U.S. EPA), with help from the Environmental Technology Commercialization Center (ETC²), is creating economic development opportunities for small businesses and assisting small businesses develop products that protect human health and the environment. ETC² is a U.S. EPA technology transfer center managed by Battelle Memorial Institute.

In the past year, ETC² has worked with numerous small companies. Of those, seven have formal cooperative research and development agreements with U.S. EPA and three have become National Environmental Technology (NET) Incubator tenants.

With ETC²'s help, the U.S. EPA laboratories in Cincinnati formed a number of strategic research and development partnerships with local companies that have resulted in cost-effective compliance solutions. For instance, a small Cincinnati firm received support to develop a test to evaluate metal working fluids. A consortium of more than 60 companies joined with the company to create the test. This resulted in the creation of a nationally recognized testing protocol that substantially reduces the cost of selecting effective, affordable metal working fluids. ETC² also helped a small business in Cleveland team up with a researcher at U.S. EPA to investigate new markets for recycled aluminum oxide.

In addition to developing products and processes, smaller companies must deal with problems associated with simply being a small business. To address these challenges, ETC² collaborated with Central State

University in Wilberforce, Ohio, (near Dayton) to establish the NET Incubator. Jerry Mahone, director of the U.S. EPA-supported NET Incubator, said, "The NET Incubator guides startup companies in achieving the essentials for success: being well managed, adequately funded, able to secure

regulatory approvals, and effective at communicating benefits to customers."

For more information, contact Kathya Mahadevan with the ETC² at mahadevank@battelle.org or (513) 362-2602.

Waste and Energy Reduction Assistance

How Your Business Can Save Money and Work Cleaner

In today's competitive business environment, saving energy, reducing waste and improving productivity are more than just buzz words; they are vital for a business to be successful. Unfortunately, many small and medium-sized industries lack the in-house expertise to identify and implement the latest energy efficiency, pollution prevention and productivity measures. To assist these businesses, the U.S. Department of Energy offers an efficiency auditing program, run through the University of Dayton's Industrial Assessment Center.

The University of Dayton Industrial Assessment Center

The University of Dayton Industrial Assessment Center (IAC) provides free assistance to area industries on energy, productivity and waste reduction. Last year, the IAC identified about \$7 million per year in potential savings opportunities for businesses. Some clients reported

saving up to \$113,000 as a result of their assessments. Assessments are led by engineering professors and graduate students.

What Does an Assessment Include?

In most cases, the IAC team can perform an assessment in one day. The teams work with plant personnel to identify savings opportunities. They also examine utility bills, facilities, equipment, manufacturing processes and waste streams. Within six weeks of the assessment, you receive an easy-to-read, confidential report with recommendations on reducing waste, energy use and improving productivity.

Who Qualifies for a Free Assessment?

To qualify for a free assessment, your firm must have a Standard Industrial Code (SIC) from 20-39 and meet two of the following criteria:

- gross annual sales below \$100 million;

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Waste and Energy Reduction Assistance

- annual energy bills between \$100,000 and \$2 million;
- fewer than 500 employees.

Interested? If yes, contact Dr. Kelly Kissock at kkissock@udayton.edu or (937) 229-2852.

Ohio EPA's Office of Pollution Prevention

The Office of Pollution Prevention (OPP) at Ohio EPA offers non-regulatory and free technical services to small businesses to help them identify ways to reduce wastes. A simple definition of pollution prevention is an effort to reduce the use of hazardous chemicals or reduce the amount of waste generated from a process. There are many pollution prevention steps that even a small company can take. Some examples include:

- finding less hazardous substitutes for raw materials;
- making process or equipment changes to increase efficiency;
- developing regular maintenance programs; and
- capturing materials for reuse or reprocessing.

These activities can save you money and help make environmental compliance easier. OPP also has a low-interest loan program to help companies finance pollution prevention projects. For more information, call (614) 644-3469.

ENERGY STAR Small Business

Are you paying more for energy than you have to? Those extra dollars you're spending could be your profit or a down payment on new equipment. And, not only are you losing money with energy inefficient equipment, you're also creating air pollution each time you turn it on.

One way your small business can cut its energy use and save money is to join U.S. EPA's ENERGY STAR Small Business program. ENERGY STAR Small Business is designed by and for small businesses and their advocates. With more than 22 million American small businesses, the money saved and pollution prevented can be tremendous. Benefits of the ENERGY STAR Small Business program include:

- toll-free technical support hotline (1-888-STAR YES);
- how-to guide for analyzing and upgrading your facility;
- free electronic newsletter;
- financial resource directory of lenders;
- directory of energy equipment and free list of EPA's ENERGY STAR-labeled products;
- free educational workshops and seminars on energy efficiency;
- national and local public recognition; and
- public relations materials to promote your efforts.

What You Need to Do

- Voluntarily upgrade your equipment efficiency only where it's profitable with a simple payback of three years or less.
- Implement these upgrades within three years, but only where they maintain or improve the quality and comfort of your facility.
- Consider purchasing ENERGY STAR-labeled products when you're planning to buy or replace office equipment.

No reporting is required! But if you tell U.S. EPA about your successful upgrade, you receive public recognition and may be eligible for a national award. For more information on the ENERGY STAR Small Business program, visit the Web site at www.epa.gov/smallbiz or call (888) STAR-YES.

Material Exchanges

OMEx: Ohio's Materials Exchange A Statewide Reuse and Recycling Service

The Ohio Materials Exchange (OMEx) was set up to help businesses in Ohio increase their recycling and reuse efforts. A materials exchange program serves to "match-up" one company's unwanted materials with another company that can use the material.

OMEx is a cooperative effort between a number of state agencies and the Association of Ohio Recyclers. OMEx serves as an information clearinghouse for industrial by-products, virgin products and other unwanted materials. OMEx maintains listings of "Materials Available" and "Materials Wanted," in different categories including agricultural by-products, chemicals, durables /furniture and shipping materials. The service is free.

Material listings are published bimonthly and forwarded to the OMEx mailing list. Supplier names, addresses and phone numbers are not published. The OMEx coordinator will provide the listing contact information so that potential users can contact the offering company directly to obtain more information about the material. Completely confidential listings are available. OMEx does not take part in company-to-company discussions or shipment of materials.

Materials exchange programs can help material suppliers and receivers save money. The supplier can see a reduction in disposal costs and the receiver can obtain raw material at a lower price. Environmental benefits include less use of landfill space and saving energy that would have been required to produce new raw materials.



For more information about OMEx, call (888) 718-6639.

An Orphan Chemical Recycling Program

Remember the old phrase, "What is trash to one person is a treasure to another?" This could be the motto of Bowling Green State University's (BGSU) Orphan Chemical Recycling Program. The program was set up in 1991 through the Department of Environmental Health and Safety to help the university reduce laboratory wastes. Recognizing that it was common for lab chemicals to remain on shelves, under hoods and in other storage areas, the program focused on identifying and transferring these unwanted but still usable ("orphan") chemicals between university departments.

In 1992, the program was expanded to address orphan chemicals at local schools and non-academic facilities, including small businesses. The program helps facilitate the transfer of usable chemicals from the party wanting to get rid of the material to a party interested in using the material. Information that may be requested as part of this process includes:

- chemical identification;
- number of containers and/or total quantity of material;
- the manufacturer and chemical grade; and
- status of the containers (whether they have been opened or repacked).

A list of available chemicals is compiled and updated quarterly. All orphan materials remain at the originating institution/facility until they are claimed. The party wishing to obtain the chemical is responsible for transportation and ensure that Department of Transportation shipping requirements are met. A Material Safety Data Sheet is offered to the party receiving the orphan chemical shipment.

The Orphan Chemical Program is NOT a hazardous waste disposal program for small businesses. However, it can be a valuable resource for businesses trying to find alternatives to disposing of chemicals that can be used by another business. There is no fee to participate in the program. If you would like more information, contact Dave Heinlen, Bowling Green State University, at (419) 372-2173. Or, visit their Web site at www.bgsu.edu/offices/envhs/environmental_health.

Finance Comer

Ohio's Clean Air Resource Center

Complying with the Clean Air Act Amendments of 1990 can be costly and confusing, especially for small businesses. As part of Ohio's effort to take the sting out of compliance, the Clean Air Resource Center offers free technical and financial assistance. The Center is NOT part of Ohio EPA but works closely with the agency's Air Pollution Small Business Assistance Program to ensure businesses get accurate and up-to-date technical information.

To encourage small businesses to seek assistance, state law requires the Center maintain confidentiality of all information received. No information obtained by the Center can be used in an Ohio EPA enforcement action.

The Center can also provide financial assistance for pollution control, energy efficiency and pollution prevention related projects. Center-financed projects are eligible for substantial tax benefits, including exemption from property tax assessment as well as sales and use tax for the life of the loan. The Center also has a small grant program to help small businesses in meeting the costs of financing compliance activities. Grants may be used with Center-assisted financing or with loans independently negotiated.

For more information, contact Mark Shanahan, Clean Air Resource Center, at (800) 225-5051.

Low Interest Loans Available for Businesses Making Energy Improvements

The Ohio Department of Development (ODOD) is rolling out the Energy Efficiency Revolving Loan Fund to qualified businesses. This



financial incentive is available to Ohio businesses that plan to secure a bank loan to: reduce energy costs; manage energy use; and/or install renewable energy technologies.

In cooperation with private lenders, ODOD's Office of Energy Efficiency will facilitate reduced interest costs on loans used for these purposes. The interest reduction may be as much as 50 percent of market rate on the eligible energy efficiency costs. The maximum participation by the Office of Energy Efficiency is \$250,000, but there is no limit on the size of the bank loan.

Eligible projects include the energy efficiency-related costs for new construction, rehabilitation, and purchase and installation of equipment and systems. Each project needs to meet energy efficiency performance standards to qualify for the program. Examples of eligible projects include:

- combined heat and power systems;
- system thermal insulation;
- building envelope insulation;
- energy saving lighting systems;
- fuel source conversion to renewable source;
- heat recovery systems;
- upgrade motors;

- automatic control systems and modifications; and
- high efficiency equipment and systems.

To obtain program guidelines, application forms and instructions, or more information, contact Carolyn Seward at (614) 466-4053 or *Cseward@odod.state.oh.us*. Or, visit ODOD's Web site at *www.odod.state.oh.us/cdd/oeenergy_loan_fund.htm*.

National Industrial Competitiveness Through Environment, Energy and Economics (NICE3) Grants

The NICE³ grant program is sponsored by the U.S. Department of Energy and provides funding for innovative industrial waste minimization projects, particularly for technologies that are not currently commercially available. These one-time grants are available for up to 50 percent of the project cost or \$500,000 (whichever is less). Since 1991, NICE3 has sponsored 100 projects, totaling \$33.8 million. Ohio has led the nation, with eight grants for approximately \$2.6 million.

NICE3 grants support new processes and/or equipment that: (1) conserve energy and energy-intensive feedstock; (2) reduce industrial wastes; (3) prevent pollution; and (4) improve industrial cost competitiveness. Projects must produce savings in three categories: energy, environmental, and economic. Grant recipients must be willing to share information on project results with others.

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Finance Corner

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Emphasis is being placed on the following industry sectors: aluminum; chemicals; glass; metal casting; forest and paper; oil refining; and steel. Ineligible categories for funding are nuclear radiation/ waste; electromagnetic radiation (EMF); waste treatment/disposal; hazardous waste site remediation; cross-media contamination shifts; and municipal solid waste collection or separation.

The federal government is offering an opportunity to submit a two-page summary for each potential project for initial review. This review will determine whether the State of Ohio should encourage the proposer to proceed with a full proposal. A project summary and budget must be received by the Ohio Department of Development's Office of Energy Efficiency by 5 p.m. on March 1, 2002.

If you have questions, contact John Greenway, Ohio Department of Development, Office of Energy Efficiency at (614) 466-6797. Or, visit the "NICE" Web page at www.oit.doe.gov/Access/nice3/.

New Resources

More Help Understanding Regulations Now Available On-line

A new on-line compliance assistance manual is now available to help businesses understand state and federal environmental regulations. EnviroChem Ohio was developed by the Ohio Chemistry Technology Council and Webco Environmental Management, Inc., with a \$49,800 grant from the Ohio Environmental Education Fund and \$48,500 from the Ohio Air Quality Development Authority. It can be accessed for free on the Internet at www.ohiochemistry.org/ under "links of interest."

EnviroChem Ohio is designed specifically for plant managers or small business owners who may not have extensive environmental regulatory experience or resources. It can define the regulated activities at your business and help identify practices to help you improve compliance. It can also identify ways to integrate pollution prevention activities into your business. This can mean improvements in operating efficiency and cost savings for your company.

The on-line compliance guide includes chapters on environmental management, pollution prevention, air, waste, water and SARA Title III reporting requirements. It includes many electronic links to useful resources at Ohio EPA, U.S. EPA and other sites.

Although the guide was developed for the chemical manufacturing industry, the general information in it could be helpful to many different types of businesses. If you need help with the regulations, we encourage you to explore this free resource.



SBAO

**Small Business Assistance Office
Ohio EPA**

Are you a small business owner? Do you have questions about environmental regulations?

If you need help understanding the regulations and how to comply with them, give us a call at 1-800-329-7518 or 614-728-8573.

Our services are **FREE and CONFIDENTIAL**



The Small Business Resource

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Mark Your Calendars

The Small Business Assistance Office is sponsoring the following free compliance workshops in March for small business owners in Central Ohio:

Ohio EPA's Hazardous Waste Rules and Small Businesses

Friday, March 22, 2002

Ohio EPA, Central District Office
3232 Alum Creek Drive
Columbus, Ohio 43207
9:30 a.m. until 12:30 p.m.

Ohio's Used Oil Regulations for Generators

Friday March 29, 2002

Ohio EPA, Central District Office
3232 Alum Creek Drive
Columbus, Ohio 43207
9:30 a.m. until 12:30 p.m.

Call (800) 329-7518 for more information or to reserve your space. Hurry, space is limited.
