



PREVENTION

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Proposed wastewater regulations to affect metal products manufacturers

By Jeff Lewis

Do you manufacture, maintain or rebuild finished metal parts, products or machines? Do you generate and discharge wastewater from these operations to a publicly owned treatment works (POTW) or directly to surface waters? If you do, you will be interested in U.S. EPA's proposed Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Metal Products and Machinery (MP&M) category published in the May 30, 1995 *Federal Register*.

The proposed Phase I rules contain numeric wastewater discharge limitations for many pollutants including cadmium, chromium, copper, nickel, zinc and cyanide. U.S. EPA evaluated pollution prevention when establishing these limitations. The following pollution prevention technologies were included as the basis for the discharge limits:

- Flow reduction using flow restrictors, conductivity meters, and/or timed rinses, for all flowing rinses, plus countercurrent cascade rinsing for all flowing rinses;

MP&M Overview

- Will impact approximately 10,600 facilities in the U.S.
 - 8,700 indirect dischargers (to POTWs).
 - 1,900 direct dischargers (to surface waters).
- Phase I is scheduled to become final in September, 1996.
 - Covers the following industrial sectors: aerospace, aircraft, electronic equipment, hardware, mobile industrial equipment, ordnance, and stationary industrial equipment.
- Phase II will be proposed in 1997.
 - Covers the following industrial sectors: bus and truck, household equipment, instruments, motor vehicles, office machines, precious and nonprecious metals, railroad, and ships and boats.

- Flow reduction using bath maintenance for all other process water-discharging operations;

- Centrifugation and 100 percent recycling of painting water curtains;

- Centrifugation and pasteurization to extend the life of water-soluble machining coolants, reducing discharge volume by 80 percent; and

- In-process metals recovery with ion exchange followed by electrolytic recovery of the cation regenerants for selected electroplating rinses. This includes first stage drag-out rinsing with electrolytic metal recovery.

U.S. EPA is proposing to exempt existing indirect dischargers with flows of less than 1 million gallons per year
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The Green Lights Program

U.S. EPA estimates that lighting currently accounts for 20-25 percent of annual energy consumption in the United States. Of the energy used for lighting, 80-90 percent is consumed by industries, businesses, offices, and warehouses. Recent advances in lighting technologies provide significant opportunities to improve energy efficiency, minimize energy-associated expenses, and reduce pollution associated with energy production.

To promote these opportunities, U.S. EPA has created the Green Lights Program. This program provides an excellent opportunity for businesses to **voluntarily** explore the advantages of this unique public/private partnership promoting the use of energy-efficient lighting.

Economic and Environmental Benefits

U.S. EPA believes that the Green Lights Program can help reduce lighting energy demand by

up to 50 percent. This would result in carbon dioxide emissions being reduced by 202 million metric tons nationally- the equivalent of the exhaust of 44 million cars. Further, sulfur dioxide and nitrogen oxide emissions would be reduced by 1.3 million and 600,000 million metric tons, respectively. Finally, U.S. EPA estimates that the Green Lights Program could save 226.4 billion kilowatt hours of electricity per year, resulting in estimated savings of \$9 billion annually.

Public/Private Partnership

Since Green Lights began in January 1991, more than 1,910 organizations have joined the program. Participants include businesses and industries of all sizes; non-profit organizations; universities and colleges; and federal, state, and local government agencies.

U.S. EPA offers many services **free of charge**. Services include state-of-the-art computer software to survey lighting systems and

assess upgrade options. A financial registry is also available to help participants finance Green Lights activities. Unbiased lighting product performance reports, technical assistance hotlines and training programs are also provided.

Ohio And The Green Lights Program

The State of Ohio is the first state in U.S. EPA Region V, and one of the first large industrial states, to become a Partner in the Green Lights Program.

Ohio EPA's Office of Pollution Prevention (OPP) is committed to promoting Green Lights and to helping organizations participate in the program. OPP has developed a comprehensive Green Lights Marketing Strategy and provides organizations with Green Lights information and technical support. For more information on the Green Lights Program, please contact **Craig Butler at (614) 728-1261** or **U.S. EPA Energy Star Programs at (202) 775-6650**.

Proposed wastewater regulations

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(about 4,000 gallons per day based on a 250-day production year). This exemption will encourage facilities to implement water conservation and reuse measures.

How does your company measure up to the proposed rule? Pollution prevention can help achieve compliance with MP&M, as well as lower operating costs and save money. Ohio EPA's Office of Pollution Prevention (OPP) can

help your company evaluate pollution prevention technologies and practices. OPP provides technical assistance to business and industry in Ohio.

OPP services are nonregulatory, voluntary and free-of-charge. Give **Jeff Lewis a call at (614) 644-2812** for more information on pollution prevention and the proposed metal products and machinery rule.



Aero Welding Inc. of Eastlake, Ohio reaps major benefits by making a simple phone call

By Tom Maves

An opportunity identified by Ohio EPA's Office of Pollution Prevention (OPP) led Aero Welding to eliminate the use of solvent-based adhesives. The adhesive, used to join a rubber strip to stainless steel tanks, consisted of up to a 90 percent solvent mixture of methyl ethyl ketone (MEK), toluene, and acetone. Aero Welding now uses a hot-melt adhesive that contains no solvents, provides better bonding quality, and costs less than the

solvent-based adhesive. Gary Cooper of Aero Welding states, "The most important benefit to Aero Welding was eliminating exposure to toxic chemicals for the employees. The new process has increased employee morale and demonstrated to them that we are very interested in their well-being."

Aero Welding manufacturers stainless steel water tanks for the U.S. military. The company participated in OPP's assessment program, which is designed to uncover the pollution prevention opportunities that exist in every company. Cooper states, "The assessment process really opened our eyes to the resources out there that can help us, not only with current projects, but also with ones we hope to implement in the future."



The assessment process also helped Aero Welding prioritize and focus its pollution prevention efforts. Smaller companies faced with many decisions about getting a product out the door may place pollution prevention efforts on the back burner. In Aero Welding's case, simple background work by OPP allowed the company to work with its adhesive supplier to find a good substitute adhesive. Without some assistance, however, companies may agonize over where to begin looking and what resources are available for pollution prevention opportunities.

The key to a company's pollution prevention opportunities may not be as simple as a phone call, but it is guaranteed to lie within everyday activities. If you are interested in a fresh set of eyes to look at your operations in a free, voluntary, and nonregulatory environment, contact **Tom Maves at (614) 644-2807.**

ECONOMIC ANALYSIS:

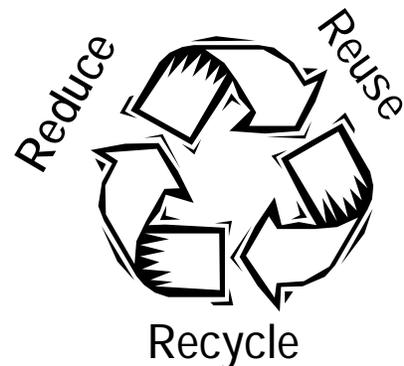
	<u>OLD PROCESS</u>	<u>NEW PROCESS</u>
<u>RAW MATERIALS</u>	\$2900/YR	\$900/YR
<u>CAPITAL EXPENDITURE</u>		\$3250

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Vanessa Smith
 Office of Pollution Prevention
 Ohio EPA
 P.O. Box 1049
 Columbus, OH
 43216-1049
 (614) 728-1262



Pollution prevention loan program undergoes changes

The pollution prevention loan program which provides low-interest capital improvement loans for the construction and/or purchase of equipment to complete pollution prevention activities at nonretail facilities in Ohio with 500 or fewer employees, has undergone two changes in the last month. The application process has been streamlined, and new legislation has prohibited retailers from receiving loans.



Streamlining

Applicants are required to undergo an environmental regulatory review to receive funds from this program. Previously, the review occurred after the Department of Development Finance Advisory Board reviewed the application. The review now occurs at the same time as the financial review. This potentially will reduce the amount of time for loan processing by three weeks.

Retail Facilities

An amendment to the State of Ohio budget bill excludes all retailers from receiving funds from this program. All loans to retailers that have not been approved by the November Controlling Board meeting will be ineligible. (Controlling Board is a legislative body that

approves the expenditure of state funds). The majority of businesses adversely affected by this change are dry cleaners and automotive repair shops. The Office of Pollution Prevention is contacting retailers who initiated the application process to inform them of the changes to the program.

Loans are available from \$25,000 to \$350,000, at a fixed interest rate currently set at two-thirds of the prime rate. More preferential interest rates are available on a case-by-case basis in distressed areas of the state. The program is jointly administered by the Ohio Environmental Protection Agency and the Ohio Department of Development. For more information on the pollution prevention loan program, please contact **Bill Narotski at (614) 728-1264.**



George V. Voinovich, Governor
Nancy P. Hollister, Lt. Governor
Donald R. Schregardus, Director

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Please direct your comments
and address changes to:
Vanessa Smith
Office of Pollution Prevention
Ohio EPA
P.O. Box 1049
Columbus, OH 43216-1049
(614) 728-1262
vanessa_smith@central.epa.ohio.gov

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Office of Pollution Prevention
P.O. Box 1049
Columbus, Ohio 43216-1049