

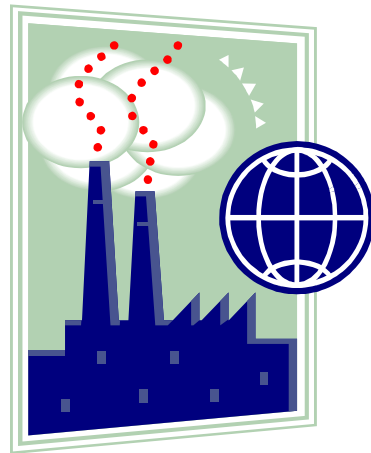
# Pollution Prevention

## Introduction and Background

As the focus of the environmental movement continues to shift from one of control to one of prevention, more businesses are examining their use and generation of toxic substances to see where they can make improvements. Using material substitution, process change or more efficient operations, pollution prevention (P2) is moving into the vanguard of environmental management. By incorporating P2 into daily operations, businesses protect human health, strengthen the economy and preserve the environment.

Substantial amounts of toxins are transported in wastewater to publicly owned treatment works (POTW) facilities, where they are treated and then released into the natural environment. Although POTWs are designed to collect and treat wastewater, it makes both economic and environmental sense to implement strategies that prevent pollution in the *first* place.

**Consider using P2 at your facility; you will be pleased with the results. P2 leads to economic savings, helps the environment, and will improve teamwork and morale at your facility.**



## Implementing P2

When considering P2 implementation, the following suggestions can be useful in planning your strategy:

- ◆ Formulate a P2 team and assign a team leader.
- ◆ Incorporate environmental awareness into your company's business model.
- ◆ Assess all substances, toxic and otherwise, that are ordinarily discharged to the POTW, taking into account the sources of the substances and the processes involving them.
- ◆ Research costs and effectiveness of any greener alternatives to harmful substances that currently are in use.
- ◆ Prioritize P2 goals and execute whatever options were deemed feasible, doing the easier things first.
- ◆ Phase in alternative materials and processes over time.
- ◆ Generate reports at regular intervals to mark P2 progress on all fronts. For example, progress might include:
  - monetary savings
  - improved quality of treatment procedures
  - enhanced effluent and sludge quality
  - compliance with environmental regulations

## Possible Solutions

- ◆ Substitute Materials:
  - Use less toxic substances and more biodegradable and/or less harmful substances that accomplish the same tasks.
  
- ◆ Alternative Processes:
  - Link processes with the discharges they create in terms of solid, liquid, gaseous and hazardous wastes.
  - Target cleanup processes that discharge wastes to the POTW.
  - Apply in-process reuse and recycling.
  - Reformulate processes to reduce or eliminate wastes.
  - Use the oldest supplies first to prevent expiration prior to use (first in, first out); a computerized inventory system can help.
  - Inspect material when received and reject off-spec material.
  
- ◆ Good Housekeeping Practices:
  - Perform regular maintenance to be sure all machinery and processes are operating efficiently.
  - Check for leaks and spills and repair immediately; have spill kits available and train employees as to proper usage.
  - Minimize spills by using spigots, valves, pumps and/or funnels when transferring liquids.
  - Reduce evaporation and spills by storing chemicals in safety containers that do not leak or absorb their contents.



## Getting Help

- ◆ New Jersey Program For Manufacturing Excellence (NJME)  
Provides no-cost P2 and energy-efficiency recommendations.  
[www.njme.rutgers.edu](http://www.njme.rutgers.edu)  
Phone: (732) 445-8289 or (732) 445-5540
  
- ◆ NJDEP Office of Pollution Prevention and Right to Know  
Provides information and guidance on the pollution-prevention process as well as the state and federal permitting process.  
[www.nj.gov/dep/opppc/](http://www.nj.gov/dep/opppc/)  
Phone: (609) 777-0518
  
- ◆ NJDEP Small Business Environmental Assistance Program  
Provides no-cost assistance to small businesses.  
[www.nj.gov/dep/opppc/small.html](http://www.nj.gov/dep/opppc/small.html)  
Phone: (609) 292-3600 and (877) 753-1151
  
- ◆ US Environmental Protection Agency  
POTW resource  
A wealth of information about POTWs: what they are, what they do, and how they operate.  
[www.epa.gov/eftpages/watwastewpubliclyownedtreatmentworks.html](http://www.epa.gov/eftpages/watwastewpubliclyownedtreatmentworks.html)
  
- ◆ Minnesota Technical Assistance Program (MnTAP)  
Suggests ways to implement P2 at POTWs.  
<http://mntap.umn.edu/potw/index.htm>
  
- ◆ Pollution Prevention Roundtable  
11 Dupont Circle, NW Suite 201  
Washington, D.C. 20036  
[www.p2.org](http://www.p2.org)  
Phone (202) 299-9701

*The above sources have been used as references for this document.*

*New Jersey Department of Environmental Protection  
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