

Pollution Prevention in Enforcement

POLLUTION PREVENTION SUPPLEMENTAL ENVIRONMENTAL PROJECTS (P2 SEPs)

-Information for companies-

Many companies are realizing substantial environmental and financial benefits from incorporating pollution prevention into their standard operating practices or environmental management systems. Companies have used P2 to more effectively meet compliance requirements and even reduce their regulatory burden.

This handout is designed for companies involved in an enforcement action with Ohio EPA (administratively, or judicially through the Ohio Attorney General's Office) and provides information on pollution prevention (P2) supplemental environmental projects (SEPs). P2 SEPs may be included as part of the settlement, at the discretion of Ohio EPA.

Introduction

Many companies are realizing substantial environmental and financial benefits from incorporating **pollution prevention** into their standard operating practices or environmental management systems. Pollution prevention (P2) avoids or reduces generation of waste at the source. Using P2 techniques to evaluate a facility's waste requires the company to look further "up-the-pipe," instead of focusing on treatment and disposal of waste. Companies have used P2 to more effectively meet compliance requirements and even reduce their regulatory burden.

Pollution prevention can be incorporated into environmental enforcement settlements via P2 supplemental environmental projects (SEPs). SEPs are environmentally beneficial projects that a company agrees to undertake when settling an enforcement action. P2 SEPs use P2 techniques to reduce waste generation or releases to the environment beyond what is required by law. The Ohio EPA Office of Pollution Prevention (OPP) can assist Ohio EPA divisions and companies in selecting appropriate P2 SEPs. P2 and source reduction are defined in detail in Attachment 1.



POLLUTION PREVENTION SEPs

1. Is your facility a good candidate for a P2 SEP?

Where appropriate, P2 SEPs may be suggested by Ohio EPA or the company during settlement negotiations. The decision of which enforcement cases are appropriate for the inclusion of a P2 SEP will be made by Ohio EPA. P2 SEPs are not appropriate in some enforcement cases.

The following examples may indicate that your facility is a good candidate for a P2 SEP:

- Your operations or processes lend themselves to pollution prevention. For example, facilities that have cleaning or painting operations, or use certain raw materials, often have good P2 possibilities.
- Potential P2 projects, or waste streams that are likely to be reduced through P2, have been identified at your facility.
- Your company has the resources (financial, personnel, or otherwise) to complete the P2 activity.
- Your company is interested in implementing a P2 activity.

Processes that commonly lend themselves to P2 include, but

are not limited to: manufacture of fabricated metal products, electroplating, manufacture of printed circuit boards, manufacture of fiberglass/plastic products, paint/coating operations or formulation, pesticide formulation, photo processing, printing, mechanical equipment repair, and automotive refinishing.

Local governments can also perform P2 activities involving their wastewater treatment plants, drinking water plants and water distribution systems, fleet maintenance, public transportation, building and grounds maintenance, utilities, office waste or community recycling programs, wellhead protection programs, or land use planning.

2. What is involved in a P2 SEP?

P2 SEPs include three different types of P2 activities that may be performed by the company: P2 projects, P2 assessments,

and third party projects (defined below). These P2 activities are negotiated by the parties involved in the enforcement case. Once the P2 SEP is included in the settlement, the company is required to complete the P2 activity. Ohio EPA prefers P2 SEPs that address the waste stream that created the most significant violations or are the most environmentally beneficial. Occasionally the most beneficial project may include a P2 SEP that addresses waste streams or environmental media not directly associated with the violations.

Once Ohio EPA has determined that a P2 project is appropriate, OPP can help identify possible projects at your facility. Replacing a solvent degreaser with an aqueous cleaning unit or improving the transfer efficiency of painting operations are examples of P2 projects. If you already have a formal P2 program established at your facility, or have a number of P2 projects identi-

P2 projects are specific activities performed at a facility that avoid or decrease generation of waste. Projects often involve improving efficiency of operations, material substitutions, changes in processes or equipment, or water and energy conservation.

P2 assessments involve setting up a P2 program at your company. A team formed to review waste generation and manufacturing processes in order to identify opportunities to reduce or eliminate waste at your facility.

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fied, a P2 project may be more appropriate than a P2 assessment.

P2 assessments help a company look at its primary waste generating processes, then develop P2 options to avoid or reduce waste generation at the source. Performing an assessment can demonstrate the many advantages of P2 to your company, and may change the way you view waste generation; waste represents lost raw materials. Assessments can be well worth the effort in identifying money-saving P2 options.

P2 projects and assessments often show measurable reductions in the use of toxic raw materials, decreased generation of hazardous and non-hazardous waste, and subsequent decrease in the release of pollutants to the environment.

If your facility's operations or processes do not lend themselves to performing a P2 project or assessment, a *third party project* may be considered. However, preference will be given by Ohio EPA to P2 projects or assessments performed at your facility that are aimed at waste reduction or elimination; third party projects are considered to be less desirable because they generally have less direct environmental benefit.

P2 projects at a given facility are not always obvious, and

Third party projects are P2 activities sponsored by your company, but performed elsewhere. These types of projects may include , but are not limited to, establishments of trust funds or provisions of grants to third parties, establishing a community recycling program, donations to waste exchanges or environmental organizations (for projects with direct environmental benefit) or sponsorship of training or educational materials for third parties (such as customers or communities).

projects such as energy efficiency audits, lighting upgrades, and other less apparent projects should be considered carefully before a third party project is proposed. As stated previously, proposed projects will be approved or denied at the discretion of Ohio EPA.

3. What about Penalty mitigation?

In exchange for performing a P2 SEP, the Ohio EPA may consider reduction of civil penalties assessed through administrative or judicial orders. How much of the civil penalty is mitigated depends on a number of factors, including details of the enforcement case and the cost of the P2 SEP to the company. However, the portion of the civil penalty that represents an economic benefit realized by your company through its noncompliance will not be mitigated. Any mitigation of penalties will be at the discretion of Ohio EPA.

For P2 projects, a company generally receives credit only

for capital costs for the implementation of the project, not for operating costs. Depending on factors such as project quality, effectiveness, benefit to the environment, and timing, the penalty may be offset by only a percentage of the capital cost, or the full capital cost of the project. For P2 assessments, factors taken into account when calculating credit generally include the size of a facility, the complexity of operations, and the potential for environmental benefit from P2.

Ohio EPA's goal for including P2 SEPs in enforcement settlements is to gain additional environmental benefit, in addition to the compliance and deterrence aspects of enforcement. While P2 projects are generally good business practices, Ohio EPA uses P2 SEPs to encourage activities that are not otherwise likely to be implemented by a company in the normal course of business due to factors such as: long payback periods, considerable technical risk, adverse effects on production scheduling, or

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availability of capital. For example, P2 SEP credit may make an innovative project look more desirable to a company, or shorten the calculated payback for a project.

Ohio EPA may review project payback or return on investment for proposed projects to determine the appropriateness of the project and the amount of credit for the project. If the project has a short payback period, P2 SEP credit may not be available. Likewise, a company typically will not receive credit for a P2 activity that was completed before settlement, or for activities that were approved or initiated before the commencement of negotiations. If a company has made a significant effort to address P2 in direct response to the violations and inspection(s) that led to the enforcement action, an exception may be considered.

4. How long do I have to complete the P2 SEP?

Project time lines will be determined through the course of negotiation. Completion times for P2 SEPs are based on reasonable amounts of time to complete the effort (all required P2 activities will have clearly defined beginning and ending points). Length of time to complete a P2 SEP project will vary depending on complexity of the project. Length of time to complete a P2 SEP assessment is usually one year, but

will vary depending on size of the facility and complexity of operations.

5. How do I document completion?

P2 assessments and projects culminate in a written report to Ohio EPA. A schedule with milestone reports will be established for any lengthy activity. In addition, measurable reductions of pollutants in the facility's emissions or discharges may be used to define project completion.

Resource Documents

Pollution Prevention in Ohio's Environmental Enforcement Settlements. Ohio EPA. April 1996.

Pollution Prevention in Ohio Enforcement Settlements, Analysis and Update. Ohio EPA. September 1995.

Ohio Pollution Prevention and Waste Minimization Planning Guidance Manual. Ohio EPA. September 1993.

Interim Revised EPA Supplemental Environmental Projects Policy. Federal Register, vol. 60 no. 90. Wednesday, May 10, 1995. p. 24856.

For more information contact the Ohio EPA Office of Pollution Prevention at (614)644-

Appendix

POLLUTION PREVENTION SUPPLEMENTAL ENVIRONMENTAL PROJECTS (P2 SEPs)

Appendix 1

Defining Pollution Prevention

Pollution prevention is the use of source reduction techniques in order to reduce risk to public health, safety, welfare and the environment and, as a second preference, the use of environmentally sound recycling to achieve these same goals. Pollution prevention avoids cross-media transfers of wastes and/or pollutants and addresses all types of waste and environmental releases to the air, water, and land. “Pollution prevention alternative” is defined in Ohio Administrative Code (OAC) Rule 3745-1-05 (A) (19).

The Pollution Prevention Act of 1990 established a national hierarchy for managing wastes:

source reduction (highest priority)

recycling

treatment

disposal or release (lowest priority).

Source reduction is any effort to reduce, at the source, the quantity of waste generated, toxic chemical use, or any release to the environment. Source reduction prevents the generation of waste through measures such as product or process changes. Product changes involve redesign for less environmental impact or increased product life (extended life cycle). Process changes include, but are not limited to:

- **input material changes:**
 - material purification;
 - substitution of less-toxic or less-hazardous materials;
 - substitution of non-toxic or non-regulated materials;

- **technology changes:**
 - layout changes;
 - increased automation;
 - improved operating conditions;
 - improved equipment;
 - increased efficiency;
 - new technology;

- **improved operating practices:**
 - operating and maintenance procedures;
 - management practices;

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- waste stream segregation;
- material handling improvements;
- production scheduling;
- inventory control;
- employee training.

Recycling means to use, reuse, or reclaim a material. Recycling does not include burning waste as fuel.

Water conservation and energy efficiency also constitute pollution prevention.

Examples of activities which do not constitute pollution prevention may include, but are not limited to, the following:

- sending waste or toxic chemicals off-site for management (other than environmentally sound recycling);
- incineration or other thermal treatment;
- treatment to reduce volume;
- treatment to reduce toxicity;
- reduction in production volume;
- use of equipment to reduce water content and volume of waste;
- installation of equipment to comply with pollution control regulations;
- de-listing of a hazardous waste or toxic chemical;
- energy recovery;
- bankruptcy.

End of the pipe solutions (generally treatment and control devices) are not considered to be P2. Treatment and control devices include equipment and processes such as air scrubbers, wet scrubbers, and bag houses.

Resource Documents:

Ohio Pollution Prevention and Waste Minimization Planning Guidance Manual. Ohio EPA. September 1993.

What is Pollution Prevention? Fact sheet No.1. Ohio EPA. December 1997.

Facility Pollution Prevention Guide. (document no. EPA/600/R-92/088). US EPA. 1988.

This is one in a series of documents Ohio EPA has prepared on pollution prevention.

The Office of Pollution Prevention was created to encourage multi-media pollution prevention activities in Ohio to reduce risk to public health, safety, welfare and the environment. Pollution prevention stresses source reduction and, secondarily, environmentally sound recycling while avoiding cross media transfers. This document represents another step in the ongoing effort to integrate pollution prevention within Ohio EPA programs.

Office of Pollution Prevention WWW address: www.epa.state.oh.us/opp

