

Summary: Ohio Environmental Protection Agency Pollution Prevention Integration Activities

In spring 1999, Ohio EPA's Office of Pollution Prevention (OPP) spearheaded development of Pollution Prevention Regulatory Integration Teams in each of the following Divisions: DSW, DDAGW, DAPC, and DEFA. DHWM had a pre-existing P2 Team. The goal of these teams is to develop strategies for integrating P2 and a prevention ethic into the core activities of the agency, such as permitting, rulemaking, enforcement, compliance assurance, planning/plan review, and administration of loan and grant programs.

In order to facilitate measurement of P2 integration progress, OPP wanted a baseline measurement of P2 integration activities. Progress of the P2 Regulatory Integration Teams can be gauged from this baseline, presented below.

The following annotated list represents Ohio EPA activities and accomplishments in the area of pollution prevention integration up until July 1999. While there has been activity since July 1999, it is not considered part of the baseline activities, so it is not recorded herein. Activities in this list occurred during the period 1996 – July 1999.

The listed actions have been taken from the Pollution Prevention Integration Quarterly Reports completed by the Office of Pollution Prevention (OPP). OPP completes these reports in order to document activities performed by Ohio EPA's divisions and district offices.

This report presents baseline activities organized first by Division, and then by the agency core functions that the initiative targeted:

- Agency Culture and Operations
- Financial Operations and Incentives
- Standard-Setting and Rule Development
- Facility Planning
- Permitting
- Compliance and Enforcement
- Reporting

Many of Ohio EPA's accomplishments to-date do not fall into one of these targeted integration categories. These have been listed under three additional headings:

- Education and Information Dissemination
- Demonstration Projects
- Internal Prevention Pollution for Ohio EPA

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1. AGENCY-WIDE

This section includes initiatives to integrate P2 into agency-wide Ohio EPA activities and programs.

Agency Culture and Operations

Pollution Prevention Training Plan — OPP consultants Tim Greiner and Bob Kerr developed a comprehensive Pollution Prevention Training Plan, delivered in October 1998. The plan is designed to provide P2 training options for staff and managers in order to increase P2 integration throughout the Agency.

Ohio EPA Strategic Plan — Ohio EPA completed its Strategic Plan that identifies areas for coordination and improved efficiency, in late 1996. Ohio EPA continues to complete P2 activities as outlined in this Plan. Each Division, District, and Office developed a strategic plan and included P2 activities in its annual plan. The FY99 Strategic Plan also makes a number of P2 commitments, as summarized in *P2 Activities in SFY '99 Annual Plans -- Grouped by Division Activities, October 7, 1998*. (Available from OPP).

Ohio Performance Partnership Agreement — P2 Integration was included in the December 1998 Environmental Performance Partnership Agreement between Ohio EPA and U.S. EPA Region 5. The Agreement, vacated by Ohio EPA in 1999, included general commitments to P2, as well as commitments to do the following:

- Include P2 projects in enforcement settlements;
- Promote P2 technical assistance information during inspections;
- Conduct multi-media inspections;
- Include P2 in permit language where appropriate;
- Review regulations for obstacles to P2;
- Support development of a P2 Information Clearinghouse;
- Provide P2 training for staff;
- Support and promote voluntary programs that implement source reduction; and
- Support voluntary sector and individual facility initiatives.

Financial Operations and Incentives:

The Ohio P2 Loan Program falls under this category of initiatives, as do awards programs that provide incentives for companies to prevent pollution. For example, under the Governor's Award for Outstanding P2 Programs, Division and district staff nominate companies and OPP staff conduct site visits for potential winners. Ohio EPA's Public Information Center (PIC) promotes the annual Governor's Pollution Prevention Awards presentation each December.

Standard Setting and Rule Development:

There has been limited activity in this area in specific Divisions, but no integration of P2 into agency-wide or multi-media rules has been reported.

Facility Planning:

Ohio Prevention First is a voluntary P2 planning initiative, described in more detail under OPP activities, below.

Permitting:

Ohio EPA has integrated P2 into permitting activities in a limited way. These activities are reported under the relevant Divisions, below. No cross-Division, multi-media permitting activities were reported.

Compliance and Enforcement:

P2 supplemental environmental projects (SEPs) — OPP and the various Districts and Divisions have been actively engaged in integrating P2 into enforcement actions via SEPs, and further refining guidance for staff on P2 integration into SEPs. In September 1995, OPP staff finalized the report titled *Pollution Prevention in Ohio Environmental Enforcement Settlements: Analysis and Update*, and distributed over forty copies to other state agencies in 1995. This document was updated when the P2 SEP Guidance for Ohio EPA entitled *Guidance for Incorporating Pollution Prevention into Enforcement Settlements* was finalized in summer 1997. In May 1998, OPP created new forms and procedures for tracking P2 SEPs.

A total of 70 P2 SEPs have been incorporated into Ohio EPA enforcement settlements since 1991.¹

Multi-Media Pollution Prevention (M2P2) inspection pilot project — In August 1995, Ohio EPA developed and initiated a pilot program for multi-media inspections that included a significant P2 emphasis. Goals of the effort were to: 1) determine the feasibility of conducting multi-media inspections and emphasizing P2 in the effort; 2) increase the effectiveness of inspections, both environmentally and administratively; and 3) encourage the type of P2-based environmental improvements that result in less regulatory burden for companies, less Ohio EPA regulatory workload, and no cross-media transfers. OPP evaluated the results of the pilot project for FY96 in *Evaluation of Ohio EPA's Multi-media Pollution Prevention (M2P2) Inspection Pilot Project*

(October 1997), which includes recommendations for revising and improving M2P2 inspections.

In SFY97, the Southwest District Office (SWDO) conducted M2P2 inspections using a single inspector and the expanded checklist approach. In August and September 1997, inspections were conducted at 14 facilities using the expanded checklist approach. In this type of inspection, a single inspector visited a site supplied with a multi-program checklist of key compliance points. When necessary, the inspector consulted with other programs for additional assistance. The checklist also included questions on P2 activities (e.g., “Has the facility completed any P2 activities in the past 1 to 5 years?”). Inspections were scheduled to be completed by June 1, 1999

M2P2 inspections have been conducted at 33 facilities.

OPP planned on evaluating results of the pilot project during FY98 and continuing evaluation efforts over the next year to determine if the inspections improve compliance, avoid cross-media transfers, and increase the use of P2 for compliance.

Reporting:

Ohio EPA has not reported any agency-wide reporting initiatives to encourage or track P2 progress.

Education and Information Dissemination:

Ohio EPA provides extensive P2 education and information dissemination services. Many of these activities are reported herein, under the relevant Divisions and Offices.

Demonstration Projects:

Ohio Materials Exchange (OMEx) — The statewide Ohio Materials Exchange (OMEx) was officially launched in October 1997. OMEx brings together several state agencies, solid waste district-sponsored regional programs, and Ohio's regulated community in a cooperative effort to reduce the amount of waste disposed in Ohio's landfills. Ohio EPA Divisions and several organizations and solid waste management agencies were notified of the program. Approximately 85,000 individuals on the mailing list readership were notified through the newsletters. An information sheet, listing form, and brochure are available and will be distributed at meetings, seminars, workshops, etc.

Dry Cleaner Initiative — The Dry Cleaner Initiative was started in 1996 with the goals of compliance assurance and improved awareness of P2 and multi-media issues. Components of the initiative have included a mass mailing to Ohio dry cleaners and the development of three documents: *Environmental Guide for Ohio Dry Cleaners*; a summary of that document; and a hazardous waste fact sheet. The *Environmental Guide* and the summary include multi-media and P2 information, and were developed by OPP in cooperation with DHWM, DAPC, DDAGW, and DSW. The *Dry Cleaner Initiative* has also included training events for District DHWM inspectors. Staff from DHWM, OPP, DDAGW and DAPC presented the training. OPP has sent letters and technical assistance information to dry cleaners who participated in the initiative and requested information regarding P2.

P2 for Internal Ohio EPA Operations:

Alternative fuel vehicles — Representatives from the Motor Pool, OPP, and the Director's Office attended a line-off ceremony at Honda of America, East Liberty, in April 1998 for the new natural gas powered Civic GX. Ohio EPA purchased the first Civic GX off the line. Ohio EPA is considering purchasing more of these vehicles. The Motor Pool has also purchased several new Ford Taurus Flexible Fuel Vehicles (FFVs). These can run on either regular gasoline or an 85% ethanol blend.

With regard to recycling activities, the Earth Day Every Day Committee regularly collects aluminum for recycling. DES recycles glass, aluminum, and paper at its offices and laboratories.

DIVISION OF AIR POLLUTION CONTROL

Agency Culture and Operations: No activity reported.

Financial Operations and Incentives: No activity reported.

Standard Setting and Rule Development:

MACT — OPP meets occasionally with DAPC's MACT Coordinator and the MACT team to discuss source categories that may be good targets for P2 efforts. For example, at a November 1998 MACT team meeting, staff discussed options for integrating P2 into the pulp & paper MACT. Also, in the January – March 1999 quarter, OPP provided draft P2 language to DAPC to be included in a notification letter to businesses affected by VOC rule changes.

Facility Planning: No activity reported.

Permitting:

The permit writers in DAPC work with the regulated entities to negotiate acceptable permit conditions. Often these discussions provoke companies to make changes at their facilities to relieve a permit burden. DAPC permit writers discuss P2 with applicants as an option to be included in their permit. This activity is done on an individual basis, depending on the comfort of the permit writer, and is not required (but is encouraged and accepted) by DAPC.

DAPC sends a package of information, including the permit application, to all companies requiring an air permit from Ohio EPA. The cover letter to this package urges companies to investigate P2 and energy conservation and refers them to OPP for further information. This information appears on all permit package cover letters from DAPC, including permits to install and permits to operate.

DAPC disseminated a letter to 350 Title V facilities potentially affected by upcoming MACT standards. The letter encourages the facilities to investigate P2 options as a possible means to comply with MACT control requirements. DAPC also was mailed information to 12,000 mostly small and medium-sized facilities that are exempt from Title V, but that may have other regulatory requirements. This mailing also included information on P2.

Compliance and Enforcement:

The DAPC Enforcement Committee met with OPP to discuss P2 SEPs during the Jan – March 1999 quarter.

Reporting: No activity reported.

Education and Information Dissemination: No activity reported.

Demonstration Projects: No activity reported.

Preventing Pollution from the Operation of the Ohio EPA: No activity reported.

DIVISION OF DRINKING AND GROUND WATER

Agency Culture and Operations:

As part of the 1998 DDAGW Work Plan, the Engineering and Operations Section (E&OS) of DDAGW established a workgroup to identify ways to incorporate P2 into Divisional activities. The workgroup decided that promoting efficiency in pumping systems in water treatment plants would be beneficial, since it is generally known that pumping systems represent a large portion of energy use in water treatment. Also, the Underground Injection Control Unit (UIC) met with OPP in 1997 regarding improved integration of P2 into UIC's priorities and work products.

Financial Operations and Incentives: No activity reported.

Standard Setting and Rule Development: No activity reported.

Facility Planning:

Wellhead protection plans — The Wellhead Protection Program Development Unit organized two workshops in October 1995. The workshops were held in Kent and Ada, Ohio, and approximately 150 people attended. P2 was presented as part of management strategies for wellhead protection and P2 literature was distributed.

P2 was mentioned specifically as a strongly recommended management option in a three-page boilerplate guidance that was developed in 1996 to accompany wellhead protection plan reviews.

In winter 1996, the Wellhead Protection Group responded to over 40 requests for the Wellhead Protection video, which features a discussion of how P2 can be a positive and effective management strategy.

P2 was discussed extensively and emphasized during a wellhead protection workshop entitled *Wellhead Protection Plans: Impacts and Benefits to Regulatory and Land Management Programs* which was organized for state agencies in February 1996. Some of the incentive-based strategies that have been successful in promoting P2 were discussed as possibilities for promoting wellhead protection.

DDAGW and OPP worked with the city of New Carlisle in 1998 to develop a wellhead protection program and support implementation of the program.

Source Water Assessment and Protection Program — The Nonpoint Source/Clean Lakes Unit of the Watershed Programs Section is serving as the technical lead on the surface water portion of the Source Water Assessment and Protection Program, a joint project of DDAGW and DSW. The purpose of the program is to assess all drinking water sources (surface and ground water) and to evaluate each one for its vulnerability to contamination. The goal is to produce a source water protection plan for each source.

Permitting, Compliance and Enforcement, and Reporting: No activity reported.

Education and Information Dissemination:

Fact Sheets on Pump and Motor Efficiency — As mentioned above under DDAGW Agency Culture & Operations (Page 6), DDAGW is developed a fact sheet on pump and motor efficiency for distribution to drinking water treatment plants, waste water treatment plants, and Class I injection well facilities.

Class V UIC Brochure — UIC investigated multiple internet sites for P2 information to include in a Class V Automotive Disposal Well brochure/outreach. P2 information was included in drafts of two Class V UIC brochures (automotive waste disposal wells and industrial waste disposal wells).

DDAGW provided information on the Ohio Materials Exchange to Waste Management of Ohio (WMO), because WMO occasionally has to purchase acid to mix with their waste to bring down the pH. WMO also has proposed to use one of their wells as a dedicated alkaline waste well to reduce their acid purchases.

Pollution prevention information was made available at the Farm Science Review (P2 in the Home and OPP's P2 publications list) in September 1997.

Storm water drainage well education — In May 1996, a 16,000 piece mailing was sent to the Fairfield and Bellevue communities (SWDO and NWDO). The mailing included a letter and brochure designed to educate people about storm water drainage wells. DDAGW hopes to decrease the amount of wastes improperly disposed and prevent pollution in ground water.

Demonstration Projects: No activity reported.

Preventing Pollution from the Operation of the Ohio EPA:

Paper use reduction — DDAGW's effort to combine flex schedules and itineraries reduced paper use from an original of 131 pages per two-week pay period to 22 pages per pay period, a savings of over 80%. Also, individual SWDO staff schedules are now submitted and delivered electronically..

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE (DERR)

Demonstration Projects:

The NWDO/DERR worked with Bowling Green State University to promote a program that enables residents to have mercury wastes collected and taken to a hazardous waste facility for recycling.

Internal P2 for Ohio EPA:

Potential solvent elimination — DERR finalized a work plan to evaluate the decontamination process for field equipment and proposed a study to demonstrate that the solvent rinse is not needed as part of this decontamination process.

All other areas: No activity reported.

DIVISION OF ENVIRONMENTAL AND FINANCIAL ASSISTANCE

Financial Operations and Incentives:

DEFA administers several loan programs for financing environmental projects. Some of these programs have elements that encourage pollution prevention. For example, under the Drinking Water State Revolving Fund (DWSRF) Program, Ohio EPA gives priority to applicants that have certain prevention measures in place, such as a contingency plan, a preventive maintenance program, a water conservation program, or a metered system. Further, Ohio's DWSRF Program includes a provision to allow a lower interest rate for repayment of a loan that funds water conservation programs, although this has not been used frequently by loan recipients. In the Clean Water State Revolving Loan Fund (CWSRF) Program, DEFA funds agricultural best management practices (BMPs) that prevent pollution of surface water through the Linked Deposit Program. This program has recently been expanded to allow financing for other prevention-oriented projects, such as urban stormwater runoff control and land development BMPs.

All other areas: No activity reported.

DIVISION OF HAZARDOUS WASTE MANAGEMENT

Agency Culture and Operations:

DHWM P2 Team -- The DHWM P2 integration team was formed prior to July 1999 to develop a P2 strategy for further integrating P2 into the Division's activities. The strategy, which was finalized in 1998, includes an implementation and training plan to further integrate P2 into the Division's activities. After the completion of DHWM's strategy, the Division formed an Implementation and Guidance Team to put the strategy into practice.

Activities of this Implementation and Guidance Team include revising procedures manuals and inspection tools to include P2, updating position descriptions, revising work unit values, developing and implementing training for staff and managers, and preparing a Memorandum of Agreement with OPP. DHWM officially began integrating P2 integration into all inspections (one of the actions included in their strategy) in October 1999.

The DHWM P2 Integration Team provided training to managers so that they are aware of their leadership and supervisory roles in making P2 integration successful. (1999)

Drinking Water at the Tap — DHWM coordinated the *Drinking Water at the Tap (DWATT) initiative*, a DHWM compliance assurance initiative targeting hazardous waste handlers in Ohio communities who have the potential of negatively affecting groundwater resources for public water supplies. A pilot study was completed in September 1997 and training for implementation began in October 1997. A mailing was sent in October and November 1997 to almost 1500 companies. Inspectors visited some of these companies to help them identify potential ground water pollution sources, such as chemical storage areas, floor drains, septic systems, and underground piping. During these inspections, P2 information was handed out and the P2 checklist was filled out. DHWM concluded the initiative at the end of the state fiscal year (FY98).

DHWM Strategic Planning — DHWM has produced the *Division of Hazardous Waste Management Strategies in Support of the Ohio EPA Goals 2001*. Some of the goals related to P2 include: developing systems to support the collection and reporting of data demonstrating P2 progress; providing education and training to hazardous waste generators on P2 practices, including on-site assistance; and evaluating further expansion of P2 integration into the enforcement program.

The Northeast District Office (NEDO) DHWM began integrating P2 into staff Professional Development Plans and integrating P2 into interview questions.

NWDO/DHWM created a new Environmental Specialist 3 (ES 3) position whose responsibilities include P2 activities as well as other compliance assurance activities. The ES 3 will be acting as a lead worker and project coordinator for any P2 activities the division undertakes.

The DHWM Technical Support Unit promotes P2 through training, presentations, and the development and dissemination of information. For example, in support of the recent promulgation of a used oil rule, TSU is currently drafting a series of used oil fact sheets emphasizing P2 and source reduction opportunities.

Financial Operations and Incentives: No activity reported.

Standard Setting and Rule Development: No activity reported.

Facility Planning: See Permitting, below.

Permitting:

Treatment Storage and Disposal Facility (TSDF) Permits — Waste Minimization Plans for TSDF facilities are required by a special condition in Ohio's hazardous waste Part B permits. DHWM receives the waste minimization plan from the company and OPP assists in technical review. For more information, see *Appendix C: Ohio Hazardous Waste Facility Installation and Operation Permit Waste Minimization Report Condition*, in *Ohio Pollution Prevention and Waste Minimization Planning Guidance Manual*.

Compliance and Enforcement:

SEPs — DHWM strives to include P2 in enforcement-related SEPs. For successful examples, see the description of SEPs under Agency-Wide activities, above.

Pollution prevention assessment training — DHWM completed four P2 assessment training sessions for inspectors and other staff at the District Offices in 1997. DHWM's contractor, Waste Reduction Institute, conducted the training sessions.² In April 1998, DHWM staff (primarily inspectors) participated with OPP in all day training sessions to promote the use of the Enforcement Procedures Training Manual and the use of P2 SEPs.

Prior to July 1999, NWDO DHWM was already occasionally distributing P2 information during inspections. For example, during the Jan. – March 1999 quarter, NWDO DHWM included P2 in 6 SQG/CESQG and 8 LQR Compliance Enforcement Inspections.

Reporting: No activity reported.

Education and Information Dissemination:

DHWM outreach in schools — In May 1998, DHWM gave a slide show and Enviroscope demonstration to five science classes (about 100 students) at Davey Middle School in Kent. The presentation emphasis was on water pollution/quality and personal P2 at home. DHWM also provided information on Ohio EPA operations, including P2, to high school students working on senior projects.

DHWM Annual mailing— DHWM's 1995 annual mailing of a hazardous waste report booklet to

² The four training sessions were in July 1997 at the Whirlpool Corporation for NWDO; August 1997 at the Hoover Corporation for NEDO; September 1997 at GMC, Moraine for SWDO; October 1997 at Columbus Coated Fabrics for SEDO and CDO.

approximately 200 facilities included one page of summarizing the P2 information available from OPP.

Demonstration Projects:

DHWM Dry Cleaner Initiative — The DHWM was the lead Division in the Dry Cleaner Initiative, described above under Agency-Wide activities.

Internal P2 for Ohio EPA : No activity reported.

DIVISION OF SOLID AND INFECTIOUS WASTE MANAGEMENT

Agency Culture and Operations: No activity reported.

Financial Operations and Incentives: No activity reported.

Standard Setting and Rule Development:

Scrap Tires — Beneficial reuse of scrap tires was incorporated into scrap tire rules adopted in 1996. Selected reuse options are allowed by rule. Other potential beneficial reuse activities may be approved by Ohio EPA on a case by case basis.

Facility Planning, Permitting, Compliance and Enforcement, Reporting: No activity reported.

Education and Information Dissemination:

Distribution of recycling and source reduction information — DSIWM provides recycling information on paint, refrigerators, and household hazardous wastes in response to inquiries from the public and private sectors. DSIWM included source reduction ideas and opportunities 1996 updates of fact sheets on handling paint and pesticides, and in a telephone guidance manual on proper management of household hazardous wastes (HHW). In addition, source reduction education was an aspect of DSIWM guidance on establishing permanent HHW collection sites.

Wood Waste Recycling Directory — DSIWM published a statewide directory of wood/pallet recyclers in Ohio in 1996 and updated it in 1997. Over 1,000 copies of the 1996 directory, which was compiled from information from Solid Waste Management Districts and industries, were distributed. The 1997 directory includes information on alternatives to wood pallets (e.g., recycled plastic, metal, and corrugated cardboard pallets).

DSIWM Newsletter — DSIWM's *Solid Waste News* has printed articles on P2.

Demonstration Projects: OMEEx Program, as described under Agency-Wide activities.

Internal P2 for Ohio EPA : No activity reported.

DIVISION OF SURFACE WATER (DSW)

Agency Culture and Operations:

In 1994-95, DSW undertook a planning process to identify initiatives to integrate P2 into their activities. Information on the results of this process is available from OPP.

Financial Operations and Incentives: No activity reported. **Standard Setting and Rule Development:**

Great Lakes Water Quality Guidance — DSW developed and adopted rules to implement USEPA's Great Lakes Water Quality Guidance. The rules contain several P2 components and a definition of P2. They became effective in October 1998.

Facility Planning:

Many of DSW's activities related to P2 are efforts to include P2 into various planning initiatives, such as source water protection planning or watershed protection plans.

Source Water Assessment and Protection Program — The Nonpoint Source/Clean Lakes Unit serves as the technical lead on the surface water portion of the Source Water Assessment and Protection Program, a joint project of DDAGW and DSW. The purpose of the program is to assess all drinking water sources (surface and ground water) and to evaluate each one for its vulnerability to contamination. The goal is to produce a source water protection plan for each source.

State Management Plan (SMP) for pesticides — The Nonpoint Source/Clean Lakes Unit continues to be involved in the workgroup developing the SMP for pesticides. The generic management plan was completed and submitted to U.S. EPA. A revised document, addressing U.S. EPA comments, is scheduled to be completed in 1998. The emphasis of the plan is on pollution prevention.

Cuyahoga River Remedial Action Plan — The October 1995 early implementation report for the Cuyahoga River Remedial Action Plan contained a section on P2.

Permitting:

DSW permit application — DSW includes a section in their Permit to Install/Plan Approval Application that asks if pollution prevention concepts have been considered for the project. If so, the applicant is encouraged to describe them.

Performance based monitoring and reporting guidelines for NPDES permits — DSW developed a concept paper on performance based monitoring and reporting guidelines for NPDES permits, drafted in 1996, which specifically includes P2.

Compliance and Enforcement:

In 1996, Northeast District Office (NEDO)-DSW developed a list of potential SEPs for settling enforcement cases involving civil penalties for each of the five basin team areas. NEDO proposed

an incentive program to DSW's upper management and legal staff to promote use/implementation of these SEP ideas by offering a greater than 1 to 1 dollar credit for these projects during settlement talks.

Reporting: No activity reported.

Education and Information Dissemination:

*FARM*A*SYST* — The Nonpoint Source/Clean Lakes Unit of the Watershed Programs Section is serving as coordinator of the Clean Water Act Section 319 funded statewide FARM*A*SYST initiative. The project Coordinating Committee identified twelve topical worksheets to be developed reflecting Ohio's environment and regulations/guidelines. Negotiations are underway with the Ohio State University Extension regarding the evaluation and pilot testing of several delivery methods for the program. The entire project has a P2 focus.

Maumee RAP workshop — The Maumee Remedial Action Plan Program received a grant from the Lake Erie Protection Fund for a workshop on P2 which took place on March 1, 1999. The workshop highlighted a new web site created by Owens Tech and Bowling Green State University. It will focus on consumer P2 issues.

Pretreatment Monitor — P2 information is included in DSW's *Pretreatment Monitor*, a newsletter published two or three times a year by pretreatment staff and sent to POTWs in the state. The fall 1997 version covered several P2 topics, including pollution prevention tips, information on a silver reduction and recycling workshop, and an article on the pesticide formulating, packaging, and repackaging industry.

Black River Area of Concern Seminar — DSW held a seminar in January 1996 for the Black River Area of Concern, entitled *Improving the Watershed: A Hazardous Waste Management and Source Reduction Seminar*. This multi-divisional seminar effort provided P2 and other regulatory information to businesses within the Black River Basin and beyond. As part of this project, NEDO (DHWM and DSW) included 1500 copies of P2 information available from OPP in mass mailings to businesses, facilities, local governments, chambers of commerce, and schools. OPP gave a presentation on P2.

Ohio Great Lakes Initiative (GLI) — A document entitled *Ohio Great Lakes Pollution Prevention Guidance* was drafted by OPP for DSW in 1997. The guidance explains how entities affected by the GLI can analyze P2 alternatives or develop and implement a P2 program.

Demonstration Projects:

Toledo Pollution Prevention Demonstration Project — This project, funded by U.S. EPA and the Ohio Environmental Education Fund, was formed to demonstrate P2 benefits for industry. The project focuses on reducing the quantity of pollutants in industrial wastewater discharges to Toledo's sewerage system. Ohio EPA has completed a Quality Assurance Performance Plan, submitted it to EPA, and has begun the sampling program. The project consultant, Jones and Henry Engineers, conducted P2 assessments at participating industries and identified several P2 alternatives.

Internal P2 for Ohio EPA: : The DSW Information and Resources Management section has been trying to make better use of the world wide web for information distribution in order to reduce the numbers of hard copies sent out. One 1996 example was the use of the web to disseminate DSW information about the Great Lakes Initiative.

OFFICE OF POLLUTION PREVENTION

Agency Culture and Operations:

OPP staff continue to support P2 integration efforts throughout the agency, as well as participate in external events to learn about P2 integration in other states. As an example, the National Pollution Prevention Roundtable (NPPR) held its national spring conference in Cincinnati from April 28-May 1, 1998. Former Director Schregardus was a keynote speaker and also led a working session on state P2 innovations. OPP and other Agency staff participated in and assisted with the conference. Anthony Sasson of OPP received an award for his years of dedication to the NPPR. Partners for the event included USEPA, the City of Cincinnati, IAMS, and the states of Indiana and Kentucky.

Great Lakes Regional Pollution Prevention Roundtable (GLRPPR) — OPP participated in the GLRPPR in March 1998. Activities at the meeting included the completion of a Region 5 P2 strategy, sustainable development, mercury P2, and regulatory integration.

Pollution prevention training plan — OPP's consultants for the P2 training plan, Tim Greiner and Bob Kerr, delivered their final report on the plan in October 1998. The plan is designed to provide P2 training options for staff and managers in order to increase P2 integration throughout the Agency.

Pollution prevention newsletter — 173 copies of both the Summer and Fall 1997 issues of Prevention Quarterly were distributed via email and inter-office mail to Ohio EPA employees.

Wet/dry cleaning training — OPP led a site visit to Widmer Cleaners, Cincinnati, in April 1996 to observe wet cleaning, advanced perchloroethylene machines, and a substitute for Stoddard solvent. Approximately 15 Ohio EPA employees attended this session, intended as training related to DHWM's Dry Cleaning Initiative. DHWM, DSW, SBAP, OPP, and the Metropolitan Sewer District were represented.

P2 communication skills training — Bruce Nilsson of the Great Lakes P2 Center/Training for Change conducted P2 Communication Skills Training for 23 Ohio EPA and Indiana DEM employees in Columbus in June 1996.

Printing industry training — The Printing Industry of Ohio and OPP conducted printing industry training for approximately 100 Agency staff in Berea and Columbus in May and June, 1996

Financial Operations and Incentives:

Ohio P2 Loan Program — The P2 Loan Program is a joint effort between the Ohio Department of Development and OPP. The objective of the program is to provide low interest capital improvement loans for the construction and/or purchase of equipment to complete P2 activities at small and medium sized businesses (businesses with 500 employees or less) and facilities throughout Ohio. As of June 1998, Ohio EPA had approved 64 Technical Review Worksheets, and the Department of Development had made approximately \$4.2 million in loans available to 21 companies.

Voluntary programs — OPP supports, develops, organizes and/or promotes the following P2 voluntary (non-regulatory) programs to provide incentives for companies to prevent pollution: Ohio

Prevention First (Ohio's voluntary P2 planning initiative), Ohio Green Lights Program, the Governor's Awards for Outstanding Achievement in P2 (these awards are given annually), Tri-State Geographic Initiative, and the U.S. Auto Project.

Standard Setting and Rule Development: No activity reported.

Facility Planning:

Ohio Prevention First — Ohio Prevention First is a voluntary program that was initiated by the Governor to promote P2 planning by Ohio companies. The initiative initially requested the top 100 TRI reporters to voluntarily prepare P2 plans and commit to reductions for all environmental pollutants in line with a 50% statewide reduction goal by 2000. Ohio EPA continues to provide P2 technical assistance to Ohio facilities through training, onsite visits, information dissemination and other types of assistance.

The Public Information Center (PIC) works with OPP to create biannual progress reports for this voluntary program. PIC also created and distributed recognition certificates to Ohio Prevention First companies participating at the Leadership or Partnership level.

Permitting: No activity reported.

Compliance and Enforcement:

P2 supplemental environmental projects (SEPs) — OPP has a strong record of encouraging P2 inclusion in SEPS. Many specific accomplishments in this area are in cooperation with Divisions and District offices, and are therefore described in Agency-Wide activities. OPP is instrumental in providing guidance to the Agency on P2 in SEPs, and in providing information to other states on Ohio's progress in this area. In November 1996, Anthony Sasson gave a presentation on P2 SEPs at the Association of State and Territorial Solid Waste Management Officials States Conference in Milwaukee, Wisconsin. Also, as described under Agency-Wide activities, the P2 SEP Guidance for Ohio EPA entitled *Guidance for Incorporating Pollution Prevention into Enforcement Settlements* was finalized in summer 1997 and OPP created new forms and procedures in May 1998 for tracking P2 SEPs.

OPP training and guidance for inspections — OPP supports training for inspectors on P2 issues. In February 1998, OPP accompanied CDO on a Title V inspection at Owens Corning/OEM Solutions Group (Hebron) for cross-training and technical assistance. In spring 1998, OPP attended an inspection of Ranco (Plain City) with DSW for cross-training purposes. Also in spring 1998, OPP accompanied SEDO-DHWM on an inspection of Hancock Manufacturing (Toronto, OH) to assist in identifying solvent alternatives and other P2 opportunities for the facility.

OPP evaluated the results of the M2P2 pilot project for FY98 and will continue evaluation efforts to determine if the inspections improve compliance, avoid cross-media transfers, and increase the use of P2 for compliance.

Education and Information Dissemination:

Pollution Prevention Week — For Pollution Prevention Week 1997, OPP distributed information promoting P2 Week to 52 Solid Waste Districts, 30 local governments, 167 Ohio Prevention First participants, and 91 OSU extension offices. PIC publicized P2 Week throughout the state and obtained a Governor's proclamation declaring September 15-19 as P2 Week. In addition, PIC set up and conducted media interviews publicizing actions citizens can take to reduce the amount of pollution they generate, including a TV interview with Ohio News Network (ONN). As part of the interviews, PIC publicized OPP's Reducing Junk Mail fact sheet.

OPP web site — A WWW Team was formed in 1997 to improve OPP's web site and OPP added a section on P2 regulatory integration to the web site in February 1998.

Ground Water Protection Council — P2 information was disseminated at the Ground Water Protection Council meeting in Cleveland in September 1997.

Demonstration Projects:

Automotive Sector P2 Project — The project, which was kicked off in 1998, is designed to promote P2 for the automotive mechanical and body repair industry. The project will likely include the production of a compliance manual with a P2 emphasis. OPP is working with the Automotive Service Association, which received an Education Fund grant to partially finance the project

DISTRICT OFFICES

Agency Culture and Operations:

P2 Teams — The Central District Office (CDO) and Northwest District Office (NWDO) formed P2 Teams . The efforts of the CDO P2 team have focused primarily on introducing the concept of P2 to the District office staff and creating an awareness of the P2 resources that are available at the district office and through OPP. The team organized a video presentation about P2 at the District Offices staff meeting in March 1998. At the April 1998 meeting, the team presented four case studies of P2 activities from the District's regulated community and OPP made a presentation regarding information and services available from OPP and P2 resources on the Internet.

CDO managers' meeting — OPP gave a presentation on its activities at the CDO managers' meeting in October 1998. Topics included the National Pollution Prevention Roundtable annual spring conference to be held in Cincinnati.

NWDO P2 Team — The NWDO P2 Team gave P2 presentations for each Division in the District in 1997. The team is developing a P2 public outreach display and internet web site, an activity for which the team received a grant from Owens Community College in June 1998. The grant will be used to fund a web site that will include information on consumer P2 practices.

NWDO Staff — NWDO/DHWM created a new Environmental Specialist 3 (ES 3) position whose responsibilities include P2 activities as well as other compliance assurance activities. The ES 3 will be acting as a project coordinator for any P2 activities the Division undertakes.

NWDO-DSW P2 planning — NWDO-DSW developed a plan in early 1997 that included eight different internal P2 activities. This plan was posted on news boards and distributed throughout NWDO via e-mail.

Financial Operations and Incentives: No activity reported.

Facility Planning: NEDO: *City of Orrville water recycling* — NEDO reports that the City of Orrville is recycling a major portion of its treated effluent water to the city-owned power plant, where it is used for make-up water for cooling.

Permitting: No activity reported.

Compliance and Enforcement: Staff in District offices are active in incorporating P2 into enforcement actions, as described in Agency-Wide activities.

Reporting: NWDO/DHWM included P2 tracking in its monthly report for the first time in December 1996.

Education and Information Dissemination

The District offices support numerous education and information dissemination efforts with regard to P2. Some examples include:

- A November 1997 meeting between Northeast District Office (NEDO) representatives and the Ohio Department of Development, representatives from Youngstown, Cleveland, and Akron included discussions on P2. The Department of Development was interested in updating its knowledge of Ohio EPA policies and procedures so that it could better assist emerging businesses with environmental issues.
- NEDO DHWM provides P2 information on hotline calls and inspections.
- NEDO coordinates the *Northeast Section, Ohio Water Environment Association (NESOWEA)*. Keith Riley, as Industrial Wastes Chairman of NESOWEA, coordinated a technical program for the October 1997 local Industrial Education Meeting. The program included a presentation by Bill Narotski on P2 opportunities for reduction of mercury sources. NEDO coordinated P2 speakers for a NESOWEA Industrial Education Meeting in October 1996. The speakers discussed POTWs promoting P2 to the indirect industrial users and the P2 Loan Program.
- NEDO hosted the Northern Ohio P2 workshop for northern Ohio Prevention First participants at NEDO in May 1998.
- The March 1996 seminar *Towards Better Management of the Mahoning River Basin; Hazardous Waste Management and Economic Development* involved several Divisions and other governmental agencies. It provided P2 information and other regulatory, environmental quality, and development information to businesses and interested parties within the Mahoning River Basin and beyond. As part of this project, NEDO/DHWM included approximately 600 copies of a summary of available OPP information resources in mass mailings to businesses within the Mahoning River area that had notified EPA of their hazardous waste generator activities.
- DHWM - NEDO included 1500 copies of P2 information available from OPP in mass mailings to schools, local governments, and chambers of commerce.
- NEDO and Southeast District Office (SEDO) placed carousels in their lobbies in 1996 to display and distribute P2 information.
- SEDO has discussed an idea to create a recording of music and helpful pollution prevention ideas and tips for the public to be heard by callers on hold at SEDO.
- CDO hosts the *Small Business Assistance Pilot Program for Central Ohio*, to distribute P2 information and refer companies to OPP.
- Southwest District Office (SWDO) created and distributed a video titled *An Ounce of Prevention* in cooperation with the Ohio Department of Health's Media Center. SWDO distributed 900

copies to the Partnership for Environmental Technology Education (PETE), based in California. The copies sent to PETE have the potential to reach between 30,000 and 60,000 students nationwide at various trade schools and community colleges. The video, which focuses on P2 for small businesses, was funded by an Ohio Environmental Education Fund grant

- SWDO helped establish a computer user group of P2 contacts in Ohio EPA in early 1997.
- SWDO presented seven Playdoh Fun Factory pollution prevention exercises for the City of Dayton Groundwater Festival. Approximately 120-150 children participated.
- SWDO developed a P2 packet of information about stormwater issues for a watershed enhancement project for the mid lower Great Miami River in 1996.
- *Public Interest Center (PIC)* also supports education and information dissemination activities. PIC distributes P2 information in citizen letters and at public hearings, publishes P2 information in *New(s) Source and Environment Ohio*, and includes P2 information in speeches. In 1996, PIC assisted OPP in creating two fact sheets, one about dry cleaners and another about acetone. PIC helped introduce and promote the *Recognition of Superior P2 (or Reduction) Accomplishments Award Program* and promoted the first winner, PPG Industries of Chillicothe. In another example, PIC stressed P2 messages while publicizing the restart of the E Check program in Cincinnati (e.g., maintaining the vehicle to reduce emissions over the long term and not overfilling the gas tank, to prevent emissions). PIC issued a news release in May reminding boaters of the proper management of winterization fluids (including antifreeze).
- *Small Business Assistance Office (SBAO)* continues to distribute pollution prevention information and include pollution prevention references in SBAO printed information and letters.

Demonstration Projects:

- *NEDO — FabriCare Technology Center.* DHWM/NEDO participated with Cuyahoga Community College and others in the development of this wet cleaning demonstration project for area cleaners and their employees.
- SWDO coordinates the Southwest Ohio Local Government Pollution Prevention Collaborative, a grant-funded SWDO project with OPP, the City of Cincinnati, and the Institute of Advanced Manufacturing Sciences as partners. The Collaborative will host meetings geared toward training local government officials from diverse areas such as purchasing, vehicle maintenance, utility engineering, air pollution inspection, and community landscaping. Participants will learn about saving money and improving the environment and regulatory programs through P2. Examples include the City of Cincinnati's efforts to reduce air pollutants in traffic paints and encourage citizen participation through programs such as Waste-Free Fridays. It is anticipated that the Collaborative will become permanent in southwest Ohio and then expand to the rest of the state. The Collaborative provided some funding for participants interested in attending the National Pollution Prevention Roundtable Spring Conference in Cincinnati

- NEDO/DHWM worked with a company to install a silver recovery unit for photoprocessing wastewater.

Preventing Pollution from Internal Ohio EPA Operations

- SEDO took preventative measures to reduce office wide energy consumption in June 1998, in response to utility company requests, due to extreme heat in the Central Ohio area and power plants that were off line for servicing.
- SEDO completed an assessment of its existing lighting at the office in Logan. The report was reviewed by OPP and recommendations were made. An energy efficient upgrade was planned upon completion of renovations in 1997.
- SEDO revisited the Green Lights program in spring 1997 to evaluate the tubes tested in three offices over the previous several months and examine other options for greater energy efficiency.
- SWDO completed an energy audit of its office space and the building owner installed energy efficient lighting and other energy saving devices in late 1996.
- SWDO staff now submits and delivers individual staff schedules electronically to save paper.