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Pollution Prevention Supplemental Environmental Projects

City of Upper Arlington, Ohio

The Ohio Environmental Protection Agency (Ohio EPA) Office of Compliance Assistance and Pollution Prevention (OCAPP) has developed a number of case studies that provide information on the use of pollution prevention supplemental environmental projects (P2 SEPs) in Ohio enforcement settlements. Each case study describes the development of pollution prevention (P2) programs or projects that have been included in an enforcement settlement. The City of Upper Arlington case study illustrates how P2 SEPs can be used in enforcement cases, and how the environment, the State of Ohio, and local governments can benefit from P2.

Introduction

P2 SEPs include three different types of P2 activities that local government may perform: P2 assessments, P2 projects, and third party projects.

These P2 activities are negotiated by the parties involved in the enforcement case. In exchange for completing the P2 SEP, Ohio EPA offers a reduction in 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 violations, estimated P2 SEP costs and potential environmental benefits. Any mitigation of penalties will be at the discretion of Ohio EPA.

P2 assessments involve establishing a formal P2 program at the local government level. This includes setting up a team to review internal local government operations to evaluate cost-effective opportunities to reduce or eliminate waste or pollution. P2 assessments can be valuable for many local government operations including wastewater treatment and public water supply systems.

Local governments have several areas they can evaluate for P2 opportunities, including:

- wastewater treatment plant operation.
- public water supply system.
- fleet maintenance.
- buildings and ground maintenance.
- construction and property management.
- local schools.
- municipal solid waste planning.
- wellhead or source water protection.
- land use planning.

P2 projects are specific activities performed by local government that avoid or decrease the generation of waste or pollution. Projects can involve substituting less hazardous or toxic materials in fleet, property and grounds maintenance; installing energy efficient lighting or equipment; and using environmentally sound technologies for wastewater or water treatment. Projects that reduce pollutant impact on natural resources through conservation activities may also be suitable P2 SEPs.

Third party projects are sponsored by local government and performed by a third party (such as a non-profit group, consultant, trade association or local university or college). Third party projects may include establishing a trust fund, donation or grant to a third party for specific P2 activities. These activities could include performing P2 assessments at local businesses, providing financial support to a local waste exchange or implementing conservation activities for a local watershed (river or stream).

Upper Arlington P2 SEP Activities

- Recycling containers used for weed control spray.
- Reducing packaging waste from repair kits for storm and sanitary sewers.
- Using re-refined oil and recycling used oil and oil filters.
- Changing solvent based parts washers to aqueous-based systems.
- Using a paperless reporting system to reduce 90% of the paper that used to be generated.

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Enforcement Settlement

Ohio EPA received a complaint that several containers of potentially hazardous materials were being mismanaged at the City of Upper Arlington's Roberts Road facility. The complaint was verified during an Ohio EPA investigation and the city was cited for improper storage of hazardous waste, failing to prepare and maintain a closure plan for the storage area, failing to determine if wastes accumulated onsite were hazardous and disposing of hazardous waste without a permit. The city agreed to submit a closure plan, pay a civil penalty and, as P2 SEPs, develop a comprehensive P2 program and complete a city-wide P2 assessment. The city also agreed to implement specific projects identified from P2 program activities. The city received a total penalty of \$69,200. They paid \$10,000 and the remaining \$59,200 was offset for the P2 SEPs (\$10,000 for developing the program; \$49,200 for implementing specific projects).

Implementation and Results

The City of Upper Arlington developed a P2 team and completed a city-wide P2 assessment of its operations. The results of this effort were documented in a P2 assessment report that was reviewed and approved by Ohio EPA. The P2 assessment report identified several potential P2 projects that could be implemented. The city prioritized their findings and focused on 13 specific P2 projects. Five of these projects are reviewed below to demonstrate the benefits of P2 in local governments.

Container Recycling

Weed control spray is used in parks, around buildings and along thoroughfares to reduce unwanted weed growth. This material comes in

plastic containers. The city found a plastics grinder that will recycle the containers as long as they are triple rinsed and punctured according to regulations. This reduced the amount of herbicide containers being disposed. Upon further investigation, the city found that containers could be recycled using the city recycling service which reduced costs.

Packaging Waste Reduction

The city repairs storm and sanitary sewers. The repair kit contains a bucket and resin individually packaged in a cardboard box. The city began buying these kits in bulk which eliminated cardboard packaging and reduced the number of buckets requiring disposal.

Oil Recycling

The city uses motor oil and oil filters in fleet vehicles and collects motor oil from residents. Used oil handling procedures were reviewed to ensure that leaks and spills were minimized. Used motor oil is sent for recycling and used oil filters are drained, crushed and recycled. The city also began using re-refined oil for their fleet vehicles.

Solvent Reduction

Solvents were used in three immersion parts washers to clean engine parts. The city investigated aqueous-based parts cleaners to reduce the use of solvents and initially purchased one system to test. The new system worked well enough that two aqueous-based systems were able to replace three solvent based parts washers.

Paperless Reporting

The city issues a number of reports and related documents as a part of police, fire and other city functions. A paperless reporting system was

implemented using a computer interface and cellular phone service in the field. The system allows police and firefighters to enter report data for city/federal reports and transmit data to the central office. All reports are kept on a central server where they can be electronically delivered to users by Internet or fax. As a result, the city reduced paper generation by 90 percent. This system also saves fuel by not having employees return to the office to turn in paperwork after each report.

Discussion and Conclusions

The City of Upper Arlington found a large number of P2 opportunities in their operations by forming a P2 team which completed a city wide P2 assessment. By prioritizing P2 opportunities in the assessment, they were able to implement 13 specific P2 projects. The city instituted new recycling programs and reduced the amount of waste generated from spills, packaging, automotive repair and other areas. The City's P2 assessment will also help them complete further waste reductions in the future.

Further Information

Additional information on using P2 in enforcement settlements is located on OCAPP's P2 SEP Web site at: www.epa.state.oh.us/opp/p2regint/p2sep1.html. You can also contact your inspector at the appropriate District Office or OCAPP at 800-329-7518 to discuss P2 SEPs or how they may apply to your situation.