An Environmental Self-Evaluation For Small Business

Tool #1

A Practical Guide To Environmental Compliance

Commonwealth of Pennsylvania
Department of Environmental Protection
http://www.dep.pa.us (Choose Pollution Prevention)

Tom Ridge, Governor
Commonwealth of Pennsylvania

September 1996

James M. Seif, Secretary
Department of Environmental Protection

Pennsylvania Department of Environmental Protection

Rachel Carson State Office Building
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September 1996

Dear Friend,

On behalf of Governor Tom Ridge, we are pleased to provide you with ***An Environmental Self-Evaluation for Small Business — A Practical Guide to Environmental Compliance.*** Using this guide can save both time and money for your business. It is the first in a series of tools being provided by the Department of Environmental Protection's (DEP) Office of Pollution Prevention and Compliance Assistance to help companies cost-effectively achieve -- and even go beyond compliance.

This self-evaluation is designed to help you determine the environmental reporting, permitting and/or special handling procedures required under current state law that apply to your business. We encourage you to contact your DEP Regional Office or seek assistance from qualified environmental consultants if questions arise concerning compliance with environmental regulations. It is important to note that fines and penalties associated with noncompliance can be waived *if* reported promptly and in accordance with DEP's Voluntary Environmental Compliance Audit Policy.

DEP encourages companies to prevent pollution, even before it is created. Research shows that for every dollar spent on pollution prevention, a company saves *nine* dollars in raw materials, time associated with reporting and permitting activities, and in pollution treatment and disposal costs -- not to mention the obvious benefits of pollution prevention to our environment and the citizens of the Commonwealth. Examples of specific pollution prevention techniques can be found in the sections of this guide titled *Pollution Prevention — Profit in Your Pocket.*

We encourage you to use this guide and share it with business associates. This is one of the many ways DEP is working hard to help companies protect the Commonwealth's air, land and water. Please let us know how useful you find the guide by completing the evaluation form on page 37. We hope you find this new tool helpful.

Sincerely,

James M. Seif
Secretary

Stacy Richards
Deputy Secretary
Office of Pollution Prevention and
Compliance Assistance

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EXAMPLES OF SMALL BUSINESSES THAT MAY NEED ENVIRONMENTAL PERMITS AND/OR ARE SUBJECT TO ENVIRONMENTAL REGULATIONS

Please note that this list provides examples and is not an exhaustive (complete) list of all small businesses subject to environmental regulations and/or permits.

- appliance repair shops
- automobile repair shops
- asphalt manufacturers
- assembly shops
- auto body shops
- bakeries
- building cleaning or janitorial and maintenance firms
- cabinet makers
- car washes
- chemical manufacturers
- construction firms
- dentists
- distilleries
- doctor's offices
- dry cleaners
- educational and vocational shops
- equipment repair firms
- farms
- fuel oil distributors
- foundries
- funeral services
- furniture manufacturing and repair
- gasoline service stations
- graphic arts
- house or architectural structure painters
- garages
- interior decorators
- laboratories
- laundromats
- leather manufacturers
- lumber mills
- metallurgical industries
- metal treatment plating operations
- photo processing
- plastics manufacturing
- print shops
- quarries and crushing operations
- recycling operations
- refrigeration/air conditioning service
- rendering plants
- restaurants
- saw mills
- small engine repair shops
- solvent metal cleaners
- textiles manufacturing
- tool and die shops
- trucking companies
- veterinary facilities
- vineyards
- wood working and refinishing firms

Although there are state regulations regarding mining which includes: coal and non-coal mining (e.g. mineral extraction); sand, gravel and stone mineral extraction, oil and gas drilling and exploration, these activities are beyond the scope of the intended audience of this reference guide. If the reader is conducting these activities, it is suggested they contact their District Mining office, (see p. 32) for further information.

HOW TO USE THIS GUIDE

INTRODUCTION

This guide is intended to help you comply with Pennsylvania's environmental regulations. The information may be useful at anytime in the life cycle of your business--prior to startup, during operation if you haven't already examined your environmental impact, before relocation, expansion or embarkation on a new venture.

Regardless of the size of your operation, this guide is designed for you. If you're a small business with limited resources, the guide's self-evaluation checklists can serve as your preliminary tool for identifying areas of possible environmental non-compliance. It may also help identify cost saving pollution prevention opportunities. It covers the general regulatory categories of air, water, storage tanks, solid waste (municipal and residual) and hazardous materials.

AN IMPORTANT FIRST STEP

This environmental self-evaluation is only one step in a series of steps that a small business should take to determine its regulatory compliance. The lists provided will be most effective when used in conjunction with related tools, such as workshops and publications targeted to this topic. For many small businesses, the environmental self-evaluation guide will be as useful as a thermometer would be for a person with a fever: it measures the symptoms, but an expert opinion may be needed to diagnose the problem.

Consider this guide as a reference for a diagnostic tour of your small business in preparation for achieving compliance with state environmental regulatory guidelines. It may be helpful to companies to regularly conduct routine self-evaluations to determine if they are in compliance, when new permits are needed or when old permits should be renewed or revised.

Review each chapter with a group of people who are most familiar with business operations, such as the company owner, operations manager, construction engineers, shipping, inventory and purchasing managers and supervisory staff. Their responses to the self-evaluation questions should indicate whether potential hazards or polluting activities are occurring that require permits and/or operational changes.

BENEFITS

Though by no means comprehensive, the *Environmental Self-Evaluation for Small Business* can prove worthwhile as a preventive strategy in much the same way that an internal financial audit can help companies avoid violations of tax laws. It can also assist companies in identifying and obtaining required environmental permits.

Direct and measurable benefits of conducting regular environmental self-evaluations, together with implementing pollution prevention techniques, may include reductions in environmental emissions, insurance rates, waste handling costs and accident statistics. It also can lead to an improved compliance record, present cost saving opportunities to move beyond compliance and to create a better work environment, through improved worker health and safety.

Intangible benefits may include better relations with regulatory agencies and neighbors, improved employee morale, favorable publicity and a stronger corporate reputation for integrity.

WHERE TO FIND ADDITIONAL RESOURCES

Some small businesses may need to obtain more comprehensive information about relevant regulations, permits, requirements and the scientific evaluation and documentation of environmental violations before compliance can be assured and it may also involve fully implementing a program of operational changes. For these companies, the results of the self-evaluation may indicate that the services of a consultant or attorney are needed, especially for the small business that determines it may have committed violations of environmental regulations. In addition, free or low cost technical assistance may be available from certain universities, local and state agencies and groups like trade associations. A list of information resources and some government-sponsored technical assistance providers in Pennsylvania are listed on pages 31 - 35 of this guide.

Because regulations and requirements are often updated, specific citations from state environmental regulations, detailed permit requirements and information on penalties for specific violations have been omitted from this guide. When in doubt about the requirements or to obtain further information contact the Pennsylvania Department of Environmental Protection and/or other pertinent references listed near the end of this guide.

POLLUTION PREVENTION - - PROFIT IN YOUR POCKET

FOCUS ON PREVENTION FIRST

Why manage a problem when you can prevent it? Pollution prevention is the elimination or reduction of waste at its source. Preventing waste up-front before it becomes a management problem is usually the most cost-effective approach to environmental compliance. If you don't generate waste, you don't have to track it, permit it, pay for costly treatment and disposal methods or insure the risks that might be associated with it. That means an improved bottom line for the business. Pollution prevention actions can also increase operational efficiency, reduce energy use, often increase product quality and even expand a company's market share through enhanced public image and consumer confidence.

Although a primary focus of this guide is to evaluate compliance with the state environmental regulations, businesses should be looking at using pollution prevention as a means to get there or to take them beyond compliance and right out of the regulatory loop altogether.

Located at the end of each self-evaluation checklist are some examples of how Pennsylvania companies have benefitted from implementing pollution prevention programs. The result--reduced compliance burden and increased cost-savings--a real win-win situation for any business. Your business, too, can benefit by taking such an approach. The DEP's Office of Pollution Prevention and Compliance Assistance currently has available and continues to develop pollution prevention resources and services for businesses in Pennsylvania. A sample of some of the services and publications available are listed on pages 34, 35 and 36 of this guide.

DISCLAIMER:

An Environmental Self-Evaluation for Small Business: A Practical Guide to Environmental Compliance provides useful procedures for small businesses to follow to review and improve compliance with environmental requirements. The guide is not a comprehensive listing of all environmental requirements which are applicable to all small businesses. A comprehensive list would be dependent on numerous site or case specific evaluations which are beyond the scope of the guide. The guide identifies general areas of regulation and further investigation beyond the guide may be necessary. Completion of the checklist is no guarantee that the small business has identified or is in compliance with all applicable state and federal regulations. Small businesses using this guide as a diagnostic tool are urged to use the guide as a first step in evaluating compliance.

ENVIRONMENTAL COMPLIANCE AUDITS AND IMPLEMENTATION OF ENVIRONMENTAL MANAGEMENT SYSTEMS

POLICY

The Pennsylvania Department of Environmental Protection will follow a department-wide policy to encourage voluntary compliance of applicable environmental requirements by means of conducting environmental compliance audits and audits of Compliance Management Systems. Information about use of this policy by small businesses is discussed in the box below.

PURPOSE

The protection of the environment and the public health and safety rests principally on the public's voluntary compliance with environmental laws. Voluntary compliance begins with an awareness of environmental problems and is often achieved through the implementation of regular environmental self-evaluation. This includes conducting voluntary environmental compliance audits and the establishment and periodic reviews of a Compliance Management System. To promote voluntary compliance the Department will provide meaningful and concrete incentives to encourage companies and individuals to perform voluntary environmental compliance audits and to establish Compliance Management Systems.

RELIEF AVAILABLE

A major disincentive to undertaking environmental self-evaluation is the threat of civil and criminal sanctions. To remove this disincentive, the Department will provide limited relief from certain enforcement actions, including civil penalties for companies or individuals: 1) who conduct voluntary environmental compliance audits of their operations or other self-assessments of their activities pursuant to a Compliance Management System, 2) disclose non-compliant conditions when uncovered to the Department and 3) act reasonably and diligently to correct or eliminate the violations of the environmental requirements.

The public's confidence in the Department's administration of environmental programs is enhanced by prompt disclosure and correction of violations of environmental requirements. Prompt disclosure allows the public and the Department to evaluate whether actions to correct the violations are reasonable and diligently pursued.

For a copy of the Department's Voluntary Environmental Audit Policy, contact the Office of Chief Counsel at 717-787-7060 or Office of Pollution Prevention and Compliance Assistance at 717-783-0540.

USE OF POLICY BY SMALL BUSINESS

Under the Department's Voluntary Environmental Audit Policy, the term environmental audit includes procedures approved by the Department for use by small businesses as defined in the glossary of the guide on page 30. The Department has approved An Environmental Self-Evaluation for Small Business: A Practical Guide to Environmental Compliance guide under the Audit Policy provided it is used on at least an annual basis to evaluate compliance. Because the guide is not a comprehensive listing of all applicable environmental requirements for all small businesses, coverage under the audit policy is only provided for violations which are discovered as a result of use of the guide.

In addition, while conducting an environmental audit provides coverage under the Audit Policy, it is not a substitute for developing and implementing an overall Compliance Management System (CMS). An environmental audit may be a component of an overall CMS, bus small businesses are encouraged to consider going beyond just conducting annual environmental audits under the guide and developing and implementing an overall CMS.

HOW TO USE THE FOLLOWING CHECKLISTS

Please use the enclosed checklists as a reference to guide your business beyond compliance. If all diagnostic questions are answered "yes" or are "not applicable", contact your local regional office of DEP to confirm that the business is in compliance with all pertinent environmental regulations, and to determine when current environmental permits should be renewed.

If the response to some or all of the diagnostic questions is "no" or "can't determine", we recommend that you contact an environmental consulting firm or an environmental attorney to obtain expert assistance in making necessary operating changes or completing permit applications. The local regional offices of DEP may be contacted to explain the permitting process and to answer other specific questions.

Please see pages 32 and 33 for names and numbers of people to help you.

DIRECTIONS

1) Review each answer carefully and check the appropriate box.

2) Any "no" answers are indicators that a potential problem may exist.

3) Use the answers from the checklist to create a working list of environmental compliance issues that may require further investigation. Details about quantity, concentration and name of material are important.

4) A "no" response may indicate that operational changes or permits are necessary. However, this may not be true for every case. Therefore, it is important to consult the regulatory agencies, environmental engineers, or attorneys to determine what is needed.

5) If you are ever unsure, ask questions. It will be more efficient and less costly if the project is in compliance when completed.

6) Please keep a record of the dates this Self-Evaluation was used and the name of the person who conducted the evaluations.

AIR

AIR QUALITY

Air emissions are the release of any air contaminants, including dust, fume, gas, mist, odor, smoke, vapor or any combination of them, to the outdoor atmosphere. Anyone planning to acquire, construct, modify or reactivate any air contamination source (such as a stack or process), or install any air pollution control device must obtain a construction permit, called a plan approval, unless the construction, modification, reactivation or acquisition is specifically exempt or determined by DEP to be of minor significance.

Anyone planning to operate an air contamination source must also obtain a DEP operating permit. The permit can be obtained after the Department is notified that construction is completed and the Department has determined that all applicable conditions of the plan approval are met. Anyone planning to operate an acquired air pollution source must have its operating permit transferred to the company name.

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(1)	If the company emits air contaminants, has the firm investigated whether it complies with state requirements for these air emissions?	☐	☐	☐	☐
(2)	If the company's activities result in air emissions, have these been identified, measured and documented?	☐	☐	☐	☐
(3)	Does the company have an up-to-date site plan or blueprint showing all existing sources of air pollution?	☐	☐	☐	☐
(4)	If the company emits air contaminants to the outdoor atmosphere (through stacks, vents, exhausts or directly to the atmosphere) out of stacks, has the process been inspected and was a plan approval or operating permit or exemption obtained?	☐	☐	☐	☐
(5)	Does the company regularly observe the emissions from its emissions points to determine whether smoke or odors are produced?	☐	☐	☐	☐
(6)	If the company burns any waste as fuel at its facility, has it obtained a plan approval to construct and a permit to operate such a source?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(7)	If the company plans to construct a facility or source that will emit any amount of air contaminants, has it obtained a state plan approval or exemption prior to beginning construction?	☐	☐	☐	☐
(8)	If the company has a state plan approval to construct an air emission source or air contamination source and has completed construction, has it obtained a permit to operate?	☐	☐	☐	☐
(9)	Are all of the company's permits to operate sources of air emissions up-to-date?	☐	☐	☐	☐
(10)	If the company has a plan approval to construct and permit to operate a source of air emissions, does it monitor whether its facilities remain in compliance with the conditions of the plan approval or permit to operate?	☐	☐	☐	☐
(11)	If the company plans to modify a source of air emissions, has it obtained state approval prior to modification?	☐	☐	☐	☐
(12)	Does the company keep yearly records of all raw materials consumed in the manufacturing of its products and use these records to estimate the volume and types of materials found in its air emissions?	☐	☐	☐	☐
(13)	If there is a malfunction of any kind with the plant's process or air pollution equipment, are the appropriate government agencies always notified in accordance with the company's compliance management system and/or state operating permit?	☐	☐	☐	☐
(14)	Has the company prepared a management plan to address all sources of potential neighborhood nuisances such as unpaved roads, fugitive air contaminants, stacks with visible emissions, uncovered storage piles or odors?	☐	☐	☐	☐
(15)	If the company has ever received complaints from neighbors regarding odors, smoke or fall-out onto their property, has the company eliminated or controlled these air emissions and have the complaints stopped?	☐	☐	☐	☐
(16)	Are all emissions (odors, visible and invisible, gaseous and particulates) controlled in compliance with regulations and laws?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(17)	If the company has any of the following equipment or operations on-site, does it have valid state air plan approval to construct and operating permit?	☐	☐	☐	☐
	▸ incinerators	☐	☐	☐	☐
	▸ industrial sources of pollution, including emissions vents	☐	☐	☐	☐
	▸ boilers, furnaces, ovens, combustion units or kilns	☐	☐	☐	☐
	▸ cement and asphalt plants	☐	☐	☐	☐
	▸ auto body shops	☐	☐	☐	☐
	▸ paint spraying, dipping or other surface coating operations	☐	☐	☐	☐
	▸ storage tanks and silos	☐	☐	☐	☐
	▸ loading docks or transfer stations	☐	☐	☐	☐
	▸ stone crushers or asphalt plants	☐	☐	☐	☐
	▸ welding operation	☐	☐	☐	☐
	▸ cleaning/degreasing operations	☐	☐	☐	☐
	▸ laboratory hoods exhausting hazardous or toxic emissions	☐	☐	☐	☐
	▸ control equipment which vents outside, e.g. bag houses, scrubbers, electrostatic precipitator, cyclones	☐	☐	☐	☐
	▸ electroplating/deposition	☐	☐	☐	☐
	▸ burn-off ovens	☐	☐	☐	☐
	▸ printing operations	☐	☐	☐	☐
	Please note that other categories or source types may need approvals or permits as well.	☐	☐	☐	☐
(18)	If your company engages in any of the following activities, does it have a current air operating permit to do so?				
	METALLURGICAL, MANUFACTURING AND CHEMICAL PROCESSING COMPANIES	☐	☐	☐	☐
	▸ combustion of fuel oil, coal or waste oil	☐	☐	☐	☐
	▸ production of coke, iron, steel or ferro-alloys	☐	☐	☐	☐
	▸ chemical processing and handling	☐	☐	☐	☐
	▸ cleaning metal with solvents	☐	☐	☐	☐
	▸ fabrication of resin or other types of plastics products, e.g. PVC	☐	☐	☐	☐
	▸ surface coating of parts	☐	☐	☐	☐
	▸ smelting or secondary production or reuse of aluminum, copper, lead or zinc	☐	☐	☐	☐
	▸ incineration of rubbish, automobile bodies, or sewage sludge	☐	☐	☐	☐
	▸ storage of organic liquids	☐	☐	☐	☐
	▸ solvent degreasing or waste solvent reclamation	☐	☐	☐	☐
	PRINTING, DRY CLEANING, CONSTRUCTION-RELATED AND OTHER BUSINESSES.	☐	☐	☐	☐
	▸ dry cleaning	☐	☐	☐	☐
	▸ graphic arts	☐	☐	☐	☐
	▸ commercial solvent use	☐	☐	☐	☐
	▸ textile fabric printing	☐	☐	☐	☐
	▸ cremation	☐	☐	☐	☐

	YES	NO	NOT APPLICABLE	CAN'T DETERMINE
MINERAL PRODUCTS INDUSTRIES.	☐	☐	☐	☐
▸ manufacturing of bricks and related clay products, asphalt, cement, glass, lime, gypsum - processing of crushed stone, taconite ore, coal	☐	☐	☐	☐
▸ manufacturing of industrial paving	☐	☐	☐	☐
WOOD-RELATED INDUSTRIES.	☐	☐	☐	☐
▸ chemical wood pulping	☐	☐	☐	☐
▸ manufacturing of pulpboard, plywood veneer	☐	☐	☐	☐
▸ storage and use of surface coatings such as stain, wood sealer, varnish, paints or adhesives and solvents	☐	☐	☐	☐
▸ incineration of woodworking waste	☐	☐	☐	☐
FOOD AND AGRICULTURAL BUSINESSES.	☐	☐	☐	☐
▸ food ingredient roasting and/or drying operations	☐	☐	☐	☐
▸ fermentation	☐	☐	☐	☐
▸ fish processing	☐	☐	☐	☐
▸ processing of meat in a smokehouse, fryer or oven	☐	☐	☐	☐
▸ operation of grain elevators and processing plants	☐	☐	☐	☐
▸ bakeries	☐	☐	☐	☐
(20) For businesses having gasoline dispensing capabilities equal to or more than 10,000 gallons per month (10,000 gallons per year when storage tanks are dug up and replaced) and located in the counties of Bucks, Chester, Delaware, Montgomery and Philadelphia, are the gasoline dispensing sites equipped with any a Stage II Vapor Collection System?	☐	☐	☐	☐
(21) For businesses having gasoline storage tanks with a capacity of greater than 250 gallons that were installed after January 1, 1979 or greater than 550 gallons used for agricultural purposes, or greater than 2,000 gallons that were installed before January 1, 1979, are your tanks equipped with a vapor recovery system (Stage 1 control)?	☐	☐	☐	☐
(22) If gas-powered motor vehicles are used in the day-to-day operation of the business, is maintenance conducted on a regular basis to meet regular inspection standards?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(23)	If stationary engines are used at the business, have emissions levels been tested and have operating permits been obtained if required under Reasonable Available Control Technology (RACT) requirements?	☐	☐	☐	☐
(24)	If fugitive dust is generated within buildings by business operations, are methods used to control dust? If methods are mechanical, have permits been obtained for these control devices if required?	☐	☐	☐	☐
(25)	If the company has industrial exhaust ventilation systems on machines or in the workshop, does the company have an operating permit for any air contaminants emitted?	☐	☐	☐	☐
(26)	If the company is involved in refrigeration/air conditioning or solvent degreasing and uses ozone depleting compounds, such as chlorofluorocarbons or 1,1,1-trichloroethane, has the company made plans to eliminate the use of these compounds?	☐	☐	☐	☐
(27)	If the company conducts open burning, has DEP approval been obtained if the open burning activity is not exempted from regulation?	☐	☐	☐	☐
(28)	If the company generates fugitive dust and/or odor emissions, is it in compliance with state air quality regulations?	☐	☐	☐	☐

Pollution Prevention -- Profit in Your Pocket

Jamestown Paint Company of Jamestown, Pa., reduced its use of toluol by 95 percent and xylol by 74 percent by developing water-based products to replace solvent-based coatings.

The Knoll Group of East Greenville, Pa., a manufacturer of office furniture, eliminated the use of methyl chloroform from its cleaning and fastening operations and reduced the volume of VOC emissions by converting to a powder-based coating system. Using pollution prevention alternatives in these two processes alone saved the Knoll Group more than $1.1 million per year and a return on its $1 million investment in less than one year. Other bonuses include ease of compliance with more stringent environmental regulations and elimination of fees for incineration of solid and liquid hazardous wastes.

Leff-Marvins Cleaners, Inc. of Pittsburgh, Pa., provides dry cleaning services. The company replaced its old equipment with new cold water chilled closed loop systems to recycle the PERC (perchloroethylene). The new system also uses reusable nylon filters and increases efficiency because garments no longer have to be transferred from one machine to another. The new equipment not only eliminated most VOC emissions (thus eliminating a need for a DEP permit) but reduced purchase of PERC from 200 gallons per month to 40 gallons per month. In addition, hazardous waste stream was reduced from over 1,900 gallons of spent PERC per year to just 35 gallons of still residues per month. Leff-Marvins realizes a net savings of $1,400 per month with the new system.

WATER

WATER

The area of wastewater discharge covers a vast amount of information. It is important that individuals understand the different areas of wastewater discharge, before taking action. Listed are some of the most common types of wastewater permits issued. These are not the only permits issued, simply the most common. Wastewater discharge is the release of sewage, industrial wastewater, stormwater or other pollutants to surface, groundwater or to a publicly-owned treatment works (POTW).

TYPES OF PERMITS

PERMIT TO AUTHORIZE WASTEWATER DISCHARGE (PART I)

Anyone discharging or proposing to discharge sewage and/or industrial wastewater into surface waters (rivers, streams, lakes) in Pennsylvania must receive an individual DEP NPDES permit or apply for coverage under an appropriate state-issued General Permit. The Part 1 permit authorizes the discharges and establishes discharge limitations, monitoring and reporting requirements and compliance schedules.

PERMIT TO AUTHORIZE TREATMENT FACILITY CONSTRUCTION (PART II)

Anyone proposing to construct and operate an industrial wastewater treatment facility; dispose of industrial waste by land application, subsurface disposal or underground injection; construct and operate a surface impoundment; or perform any other activity which has the potential for causing surface or ground water pollution must first obtain a Water Quality Management (Part 2) Permit.

PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

Anyone proposing to discharge stormwater from new or existing point sources associated with industrial activities must first obtain coverage under this general permit or obtain an individual NPDES (Part 1) Permit. The list of industrial activities requiring permit coverage is extensive. If a potential discharger is unsure if he needs to obtain permit coverage, the DEP Regional Office should be contacted for guidance. The general permit does not apply to certain, specific situations in which case the discharger is required to obtain an individual permit. The DEP Regional Office should also be contacted to confirm eligibility under the general permit.

PERMIT TO AUTHORIZE STORMWATER DISCHARGES FOR CONSTRUCTION ACTIVITY DISTURBING FIVE OR MORE ACRES OF LAND

Anyone proposing to discharge storm water into surface waters in Pennsylvania from construction activities disturbing more than five acres of land must apply for and receive an NPDES permit.

The permit requires the development, implementation and maintenance of erosion control measures and facilities that are set forth in an erosion and sedimentation control plan.

Most proposed construction activities between five and 25 acres of disturbance, except those in special protection watershed, may elect to utilize the Department's General Permit PAG-2 to authorize storm water discharges from the site. General Permit processing is delegated to most county conservation districts.

For construction sites or earthmoving activities exceeding 25 acres of disturbance, that are not parceled pursuant to 25 Pa. Code§102.31(a)(4), an individual NPDES permit must be obtained. Individual permit processing is delegated to most county conservation districts (Appendix G), however the individual permits are issued by the DEP Regional Office.

The individual NPDES Permit application incorporates all regulatory requirements contained in the Erosion Control Rules and Regulations, 25 Pa. Code §102. therefore an additional earth disturbance permit approval is not required for construction activities requiring the NPDES Permit (25 Pa. Code §102.31(a)(2).

EARTH DISTURBANCE PERMIT

Anyone planning to engage in an earthmoving activity which will disturb 25 or more acres of land and which does not require an NPDES permit to discharge storm water from construction activities must first receive a DEP earth disturbance permit. Generally, this will include large scale timber harvesting activities that disturb 25 or more acres of land. Permit applications are received and processed by county conservation districts. Permits are issued by the DEP Regional Office.

WATER

PERMIT FOR WATER OBSTRUCTIONS AND ENCROACHMENT

Persons planning to construct, operate, maintain, enlarge or abandon any obstruction (bridge, channel change, etc.) that will affect a watercourse, its 100-year floodway or any lake, pond, reservoir, swamp, marsh or wetland, must obtain a DEP permit. Examples of work requiring a permit include changing a stream channel, dredging or crossing; building or modifying a bridge, dock, culvert or pier; installing or changing an intake or outfall structure; working on bank protection, including fill, levees, dikes, bulkheads and flood walls; placing an aerial crossing, such as a power line, over a navigable stream, fills or construction in wetlands and peat mining.

PERMIT FOR COMMUNITY WATER SYSTEMS

Any person who plans to construct, operate or substantially modify a water system which provides waters to the public for human consumption and serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents must first obtain a public water supply permit from DEP.

PERMIT FOR WASTEWATER DISCHARGES

The area of wastewater discharge covers a vast amount of information. It is important that individuals understand the different areas of wastewater discharge before taking action. Listed are some of the most common types of wastewater permits issued. These are not the only permits issued, simply the most common.

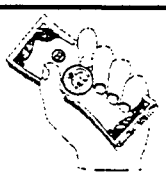
		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(1)	Has the company investigated whether it complies with local, state and federal regulations for all wastewater discharges?	☐	☐	☐	☐
(2)	If the company's activities result in wastewater discharges, have these been identified, measured and documented?	☐	☐	☐	☐
(3)	Does the company have an up-to-date site plan or blueprint showing all existing sources of waste water discharges?	☐	☐	☐	☐
(4)	If the company discharges wastewater into a municipal sewer system, is it in compliance with any applicable pre-treatment requirements?	☐	☐	☐	☐
(5)	If the company discharges its wastewater into rivers, streams or lakes, onto the ground, ground water, or subsurface waters, does it have a DEP permit for doing so?	☐	☐	☐	☐
(6)	If the company is discharging wastewater from floor drains (including sanitary sewage, industrial waste, wash water, stormwater, etc.) onto the ground, into streams, ponds, rivers, or into the groundwater, has it obtained a DEP permit?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(7)	If the business has wastewater discharges and was recently purchased, have permits been transferred to the new owner for these activities?	☐	☐	☐	☐
(8)	If water is currently used as a cleaning or cooling agent, is the water treated or disposed properly, in accordance with DEP regulations?	☐	☐	☐	☐
(9)	Are all of the company's DEP permits to discharge wastewater up-to-date?	☐	☐	☐	☐
(10)	If the company has up-to-date permits to discharge wastewater, does it monitor whether its facilities remain in compliance with the conditions on these permits?	☐	☐	☐	☐
(11)	Does the company regularly observe the discharges from its discharge points to determine whether these points are producing excessive pollution?	☐	☐	☐	☐
(12)	If the company plans to modify a facility that discharges wastewater, has the firm obtained DEP approval for this modification?	☐	☐	☐	☐
(13)	Does the company keep yearly records of all raw materials consumed in the manufacture of its products, and does the firm also compare these raw material records to the volume and types of materials in its wastewater?	☐	☐	☐	☐
(14)	If there is an upset of any kind with the plant's water pollution equipment, are the appropriate government agencies always notified?	☐	☐	☐	☐
(15)	If the company has an industrial activity which is exposed to storm water, does the company have a DEP permit to discharge this storm water?	☐	☐	☐	☐
(16)	If the company constructed any structures or authorized any development in a 100-year flood plain, was the design of the structures, the use of the land or hydraulic impact of the development consistent with local and state government standards, and did the company obtain a local permit?	☐	☐	☐	☐
(17)	Has the company reviewed its materials handling and storage practices to minimize exposure to the elements?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(18)	Does the company have an Emergency Response Plan in case of spills, leaks and accidental discharges? (Guidance on preparing a plan is available from your DEP regional office.)	☐	☐	☐	☐
(19)	Does the company have an in-house or out-service training program for employees involved in wastewater treatment/disposal and emergency response?	☐	☐	☐	☐
(20)	If the company plans to disturb a river, stream or lake through building or repairing a dam, dredging, stabilizing a bank or other encroachment has it obtained a permit or certification for this activity?	☐	☐	☐	☐
(21)	If the company is conducting agricultural plowing and tilling, does it have a current conservation plan or erosion and sedimentation control plan for its earthmoving activity?	☐	☐	☐	☐
(22)	If the company is conducting earthmoving activities, does the company have an erosion and sedimentation control plan specific to the activity?	☐	☐	☐	☐
(23)	If the company has engaged in earthmoving activities disturbing 25 or more acres of land (timber harvesting) or a construction activity affecting five or more acres of land, has it obtained an earth disturbance permit?	☐	☐	☐	☐
(24)	If the company plans to perform any alteration or development of land, has it developed a stormwater plan or taken other measures to comply with local municipal stormwater requirements or an approved watershed stormwater management plan?	☐	☐	☐	☐
(25)	Has the company investigated whether it complies with all local, state and federal regulations on wetlands, soil and erosion, stormwater management and encroachments?	☐	☐	☐	☐
(26)	If the company plans to build or modify its current facility, will it disturb or impact a flood protection project?	☐	☐	☐	☐
(27)	Has the business site been evaluated to determine whether it includes a wetland area (as defined by the DEP or the U.S. Army Corps of Engineers)?	☐	☐	☐	☐

	YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(28) If the company has begun, or is about to undertake, any of the following activities in a wetlands area, has it obtained the necessary permits for:				
▸ construction of buildings or accessory structures, roadways, septic systems, bulkheads, shoreline stabilization structures, dikes or dams?	☐	☐	☐	☐
▸ placement of fill, excavation or grading?	☐	☐	☐	☐
▸ modification, expansion or extensive restoration of existing structure?	☐	☐	☐	☐
▸ drainage?	☐	☐	☐	☐
▸ application of pesticides?	☐	☐	☐	☐

NOTE: Local government, Department of Environmental Protection regional offices, and the U. S. Army Corps of Engineers have flood plain maps and other information available that a company can use to determine if it is located in a 100-year flood plain.



Pollution Prevention -- Profit in Your Pocket

Proctor and Gamble of Mehoopany, Pa., manufactures sanitary tissue, paper towels and diapers. By converting to non-chlorine bleaching methods, the company reduced its chloroform releases to air and water by 95 percent.

Quality Chemicals, Inc., of Tyrone, Pa., manufactures custom chemical intermediates and agricultural and pharmaceutical additives. The company now distills and reuses its waste methanol in the manufacturing process and sells excess methanol to other companies. This saved substantial money by reducing methanol purchases by 33,600 gallons per quarter and lowering wastewater treatment and disposal costs.

Wickett & Craig of America of Curwensville, Pa., produces vegetable tanned leather. By changing their dye supplies to low content manganese, antimony and beryllium dyes, Wickett & Craig was able to utilize and market the resulting wastewater treatment sludge as a useful and valuable soil supplement, thus saving the company in excess of $60,000.

Merck & Company, Inc. in Riverside, Pa. is a manufacturer of pharmaceuticals. Merck engineers changed the process of manufacturing imipenem, eliminating the need for methylene chloride. Merck also installed a new computerized system to closely monitor and automate the manufacturing process of the imipenem. With the use of the new process, Merck was able to reduce the number of manufacturing steps by almost 50 percent and totally eliminate the use of methylene chloride. In addition, the new processes reduced the biological oxygen load on the wastewater treatment facility by 75 percent. The change in processes lowered production costs of imipenem and saves the company more than $14 million a year providing for a short-term payback on the $34 million investment for the new process.

STORAGE TANKS

STORAGE TANKS

An aboveground storage tank (AST) is defined as a stationary tank with a capacity of more than 250 gallons that has more than 90 percent of its volume (including the volume in the pipes) above supporting grade, can be visually inspected from the exterior and is used to contain regulated substances, including petroleum products and hazardous substances.

An underground storage tank (UST) is defined as a tank with a capacity of more than 110 gallons that has 10 percent or more of its volume (including the volume in the underground pipes) beneath the surface of the ground and is used to contain regulated substances, including petroleum products and hazardous substances.

ABOVEGROUND AND UNDERGROUND STORAGE TANKS

Anyone owning or operating a new or existing regulated storage tank must register that tank with and pay the appropriate fee to the Department of Environmental Protection prior to operating the tank.

Anyone wishing to have a regulated storage tank installed or have tank handling activities performed or an existing tank, must use the services of a DEP certified installer. Tank handling activities include storage tank installations, modifications and removals.

Any company wishing to conduct storage tank handling and inspection activities must be certified by DEP. A certified company must also employ certified installers and inspectors.

Anyone wishing to inspect storage tank handling activities (tank installations, modifications and removals) and conduct general inspections of storage tank facilities must be certified by the DEP.

Owners of AST facilities with a total aboveground capacity greater than 21,000 gallons are required to submit to DEP a comprehensive Spill Prevention Response Plan that describes the storage tank facility, preventive maintenance programs, emergency response counter-measures and spill notification procedures.

It is unlawful for an owner/operator to operate or use, in any way, a regulated aboveground or underground storage tank that is not registered as required. Violators are subject to a penalty and may be liable for any release from that unregistered tank.

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(1)	If there are any regulated petroleum storage tanks or chemical bulk storage tanks on site that are permanently out-of-service, have these been properly closed (emptied, cleaned and filled with an inert substance) and the site assessed for residual contamination?	☐	☐	☐	☐
(2)	If fuels are used for heating, vehicles, processes or heavy equipment at the business or retail sale, are the regulated storage tanks being operated in a manner consistent with DEP regulations (including leak detection, tank system installation standards, corrosion protection, spill and overfill prevention and recordkeeping)? (Note: Compliance with leak detection, corrosion protection and recordkeeping is determined by a certified inspector.)	☐	☐	☐	☐
(3)	If chemicals, fuel or hazardous substances are stored above ground, are the tanks properly registered with the DEP and inspected regularly?	☐	☐	☐	☐
(4)	If chemicals, fuel or hazardous substances are stored underground, are the tanks properly registered with DEP and inspected regularly?	☐	☐	☐	☐
(5)	Are appropriate registration stickers affixed and registration certificate displayed for all regulated ASTs/USTs?	☐	☐	☐	☐
(6)	Have all changes in the status of regulated tanks (registration, substance stored) been reported to DEP via the registration form?	☐	☐	☐	☐
(7)	Does flammable and combustible liquid storage comply with National Fire Protection Association and Pennsylvania Fire codes?	☐	☐	☐	☐
(8)	Are leak detection housekeeping procedures adequate to minimize and provide for prompt cleanup of spills and leakage of fuels?	☐	☐	☐	☐
(9)	Does the company have a current and adequate spill prevention, control and counter measures plan and/or Preparedness Prevention and Contingency(PPC) Plan?	☐	☐	☐	☐
(10)	If there are empty or temporarily out of use petroleum storage tanks or chemical bulk storage tanks on site, are these registered with the DEP?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(11)	Has the 1 800 541-2050 Hotline telephone number been posted for the reporting of spills of petroleum products, hazardous waste and/or toxic chemicals?	☐	☐	☐	☐
(12)	If a new regulated tank or modifications made to an existing tank will be installed, will a DEP certified installer be used to do the work?	☐	☐	☐	☐
(13)	Have all current Underground Storage Tank Indemnification Fund fees been paid for all regulated underground storage tanks?	☐	☐	☐	☐

Pollution Prevention -- Profit in Your Pocket

Prevent Releases Through Proper O&M of Your Storage Tank Facility

Conducting leak detection properly and consistently is perhaps the single most important pollution prevention maintenance activity you can do. Early detection of a release saves money, not only from lost revenues but also from cleanup costs. The average cost of a cleanup in Pennsylvania is $107,000, but can be significantly less if the release is detected early.

Pay attention to your leak detection results and investigate suspected releases. This can't be over emphasized as evidenced by the following true story. A facility with fairly new tanks had an Automatic Tank Gauge (ATG) installed to monitor for a release. The ATG report indicated a failed leak test. Instead of investigating properly, the owner called a service man who said the tank couldn't be leaking because it was new. The owner did nothing so the next day the ATG registered another failed test, the service man was called and this time a probe was replaced. Several days later, another failed test occurred. After several weeks, several visits by the serviceman and 10,000 gallons later, it was finally determined that the ATG had correctly detected a leak. Had the tank owner and service man properly investigated the release initially, a several million dollar cleanup could have been avoided.

[Taken from an article in LUSTLine Bulletin 24 entitled, "The ABCs of ATGs"]

MUNICIPAL WASTE

MUNICIPAL WASTE

Includes:

- Office, Lunchroom, Garbage, Refuse
- Construction and Demolition Waste
- Infectious and Chemotherapeutic Waste:

PERMIT REQUIRED FOR MUNICIPAL WASTE LANDFILL: A person or municipality planning to construct and/or operate a municipal waste landfill must first obtain a permit from DEP.

PERMIT REQUIRED FOR MUNICIPAL WASTE TRANSFER FACILITY: A person or municipality planning to construct and/or operate a municipal waste transfer facility must first obtain a permit from DEP.

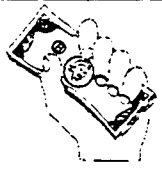
PERMIT REQUIRED FOR CONSTRUCTION/DEMOLITION WASTE LANDFILL: A person or municipality planning to construct and/or operate a disposal facility for construction/demolition waste must first obtain a permit from DEP.

PERMIT FOR RESOURCE RECOVERY FACILITY OR INCINERATOR: A person or municipality planning to construct and/or operate a resource recovery facility or incinerator must first obtain a permit from DEP.

LICENSE REQUIRED FOR PICK-UP OR DELIVERY OF INFECTIOUS AND CHEMOTHERAPEUTIC WASTE: Except for small quantity generators, anyone planning to pick up or deliver infectious and chemotherapeutic waste in the Commonwealth must obtain a license and number from DEP.

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(1)	Has the company investigated whether it complies with local, state and federal regulations for all municipal waste?	☐	☐	☐	☐
(2)	Is the company recycling the products or waste items that are required to be recycled in the community?	☐	☐	☐	☐
(3)	If the company has any active or inactive municipal waste landfills (including construction and demolition (C&D) landfills) on its property, does the company have a permit for each landfill?	☐	☐	☐	☐
(4)	If the company processes or disposes of any municipal waste on site, has it obtained a permit?	☐	☐	☐	☐
(5)	Are all of the municipal wastes generated by the facility disposed or processed at a DEP approved facility in the state (landfill, transfer station, resource recovery facility or incinerator) or appropriate out-of-state facility?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(6)	Are all municipal wastes generated transported in vehicles which meet DEP municipal waste regulations for transportation?	☐	☐	☐	☐
(7)	Does the company generate, store, treat, transport and/or dispose of any regulated chemotherapeutic or infectious waste?	☐	☐	☐	☐
(8)	If your response to question #7 is "yes," are you in compliance with chemotherapeutic and infectious waste regulations?	☐	☐	☐	☐



Pollution Prevention -- Profit in Your Pocket

Letterkenny Army Depot of Chambersburg, Pa., instituted a facility-wide municipal waste recycling program to include metal, cardboard, paper, wood, plastic and glass. More than 50 percent of the municipal waste generated at Letterkenny is now recycled. The program not only greatly reduced disposal costs but generated enough revenue from marketing the recyclables to pay for all of the operating expenses of the program, including wages and benefits, equipment operation and maintenance, utility costs and program improvements.

RESIDUAL WASTE

RESIDUAL WASTE

Residual waste is non-hazardous industrial waste including garbage, refuse, other discarded materials or wastes, such as solid, liquid, semi-solid or gaseous materials from industrial operations, but exclude office and lunchroom wastes.

Operators of residual waste disposal and processing facilities in Pennsylvania must have permits from the DEP to build, operate, expand and close facilities. Permitted operators must conduct periodic tests (such as waste and water analyses), maintain records and transmit data to DEP (such as types of waste and tonnages received), and operate in compliance with DEP residual waste regulations. Permitting enables DEP and the operator to work together to promote residual waste management goals and protect human health and the environment.

Residual waste materials range from substances such as concrete that pose little threat to the environment, to materials such as steel pickle liquor that are near-hazardous. Some residual waste is processed and/or disposed at commercial landfills, incinerators and agricultural utilization facilities. Most, however, is processed/disposed at the site where it is generated; private waste operations conducted by manufacturers or other industries that generate waste are known as captive facilities. All facilities, both commercial and captive, must be permitted.

TYPES OF PERMITS

While the sheer volume of residual wastes presents a challenge to waste management, it is the diversity--the wide range of materials, the methods used to process or dispose of them, and the impact these materials and handling methods could have on the environment and human health--that presents the greater permitting challenge. Permitting must respond to these differences. The basic types of permits are as follows:

1. *An **INDIVIDUAL PERMIT*** is issued to a specific facility to cover all waste handling operations at that location. No other facility can be covered under it.

2. *A **GENERAL PERMIT*** is issued for a specific beneficial use of a specific type of waste or for a category of processing of waste, if processing is necessary to prepare the waste for beneficial use. Any other facility in Pennsylvania that performs the same kind of operation can be covered under the same permit.

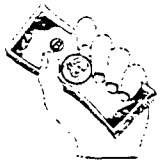
3. ***PERMIT-BY-RULE.*** If the operator complies with the regulations, he or she is deemed to have a permit. Generally, permit-by-rule is granted to processing facilities that pose little or no threat to the environment, or to operations already permitted under other environmental laws, such as the state's Clean Streams Act.

4. ***NO PERMIT*** is required for the following activities: the use of agricultural waste or food processing waste in normal farming operations; the beneficial use of coal ash; and the use of uncontaminated soil, rock, gravel, brick and block, concrete, used asphalt and waste from land clearing as clean fill. Although no permit is required for the beneficial use of coal ash, a person must comply with Section 287.661-287.666 of the residual waste regulations.

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(1)	If the company generates more than 2200 pounds of residual waste per location in any single month (large quantity generator), has it filed a biennial report with DEP by March 1 of each odd numbered year? Note: Persons or municipalities that generate residual waste as a result of *collecting* the waste, including the collection of parts, machinery, vehicles, appliances and used oil from the repair or replacement of the parts machinery, vehicles, appliances and used oil are not subject to duties of generators as per Subchapter B. Also, persons or municipalities that create waste from a spill, release, fire, accident or other unplanned event are not subject to Subchapter B.	☐	☐	☐	☐
(2)	If the company is a large quantity residual waste generator, has it prepared a source reduction strategy for each separate waste stream?	☐	☐	☐	☐
(3)	If the company is a large quantity residual waste generator, has it performed a detailed chemical analysis of each type of waste generated and submitted it to DEP annually?	☐	☐	☐	☐
(4)	If the company generates less than 2200 pounds of residual waste per location in any single month (small quantity generator) does it maintain records on site for at least five years that include the types and amounts of waste generated and either the ultimate processing or disposal date for the waste?	☐	☐	☐	☐
(5)	If the company disposes its residual waste on site, has it notified the Department as per the 1992 residual waste regulations for captive disposal or does it have a DEP disposal permit?	☐	☐	☐	☐
(6)	If the company processes its own residual waste on-site, does it have a residual, individual or general permit, waste permit or does it conduct the activity in accordance with the permit-by-rule provisions of the 1992 residual waste regulations?	☐	☐	☐	☐
(7)	If the company incinerates its residual waste on-site, does it have a residual waste processing permit or conduct the activity in accordance with the permit-by-rule provisions of the 1992 residual waste regulations?	☐	☐	☐	☐
(8)	If the company has wastewater treatment facilities for residual waste, does it have a residual waste processing permit or does it conduct the activity in accordance with the permit-by-rule provisions of the 1992 residual waste regulations?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(9)	If the company performs mechanical or manual sizing or separation of another generator's residual waste, is it conducting the activity in accordance with the permit-by-rule provisions of the 1992 residual waste regulations or does it have an individual or general permit?	☐	☐	☐	☐
(10)	If the company has residual waste storage or disposal impoundments, has it notified the Department of these impoundments and either possess a DEP disposal permit or meet the storage impoundment requirements as per the 1992 residual waste regulations?	☐	☐	☐	☐
(11)	If the company generates a co-product, does the co-product meet the terms and conditions of the co-product definition in the 1992 residual waste regulations and the standards identified in the Department's *Co-Product Guidance Document*?	☐	☐	☐	☐
(12)	If the company is beneficially using or processing a residual waste, is that activity under a general permit for the beneficial use of a residual waste?	☐	☐	☐	☐
(13)	If the company transports residual waste, does it maintain a copy of a PPC (Pollution Prevention Contingency) plan in the cab of the vehicle as well as the necessary safety equipment in accordance with the 1992 residual waste regulations?	☐	☐	☐	☐
(14)	If the company transports residual waste, does it maintain a daily operational record in the cab of the vehicle in accordance with the 1992 residual waste regulations?	☐	☐	☐	☐
(15)	If the company transports residual waste, does it submit an annual report to DEP by March 1 of every year as per the 1992 residual waste regulations?	☐	☐	☐	☐
(16)	If the company transports residual waste, is the vehicle properly marked as per Act 101?	☐	☐	☐	☐
(17)	If the company transports residual waste, is the waste delivered to facilities that are permitted to process and dispose the waste being transported?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(18)	If the company is processing waste tires by mechanical or manual sizing and separation under a permit-by-rule, is the company: (1) working under a DEP-approved remediation plan; (2) processing only for remediation of an existing pile; (3) bringing no additional tires to the site; and (4) promptly removing processed tires for off-site reuse or disposal?	☐	☐	☐	☐
(19)	If you answered no to any of the above questions, do you have a general or individual permit to process waste tires?	☐	☐	☐	☐
(20)	If the company is processing under permit-by-rule by cleaning and rinsing empty drums, are the drums being reconditioned for reuse?	☐	☐	☐	☐
(21)	If the company is processing under permit-by-rule by cleaning and rinsing containers for refill and reuse, are the containers being reused for their originally intended purpose?	☐	☐	☐	☐
(22)	If the company is operating a non-captive processing facility that separates waste oil and water, does the company possess a general permit or individual permit?	☐	☐	☐	☐
(23)	If the company stores residual waste, is it stored in such a way that it does not pose a threat of harm or harm to human health or the environment and satisfies the storage requirements of the 1992 residual waste regulations?	☐	☐	☐	☐
(24)	Are you conducting normal farming operations with agricultural or food processing wastes or have you obtained any necessary permits from DEP that may be required by the 1992 residual waste regulations?	☐	☐	☐	☐



Pollution Prevention -- Profit in Your Pocket

R. H. Sheppard Co., Inc., of Hanover, Pa., a manufacturer of power steering gears, engine timing devices and power transmission boxes, installed a green sand recycling system in its foundry. Recovered sand is placed directly back into the processing lines. The system provides recovery of about 95 percent of silica sand. Prior to installing the reclamation system, R.H. Sheppard purchased four million pounds of sand per year, but now only needs to purchase 80,000 lb. per year. The new system not only significantly reduced the need to purchase sand, but greatly reduced the generation of waste sand and resulting disposal costs.

HAZARDOUS MATERIALS

HAZARDOUS MATERIALS

Hazardous materials, substances, products and waste are a very complex and complicated issue. The following is a practical, and not necessarily a legal or regulatory definition, of these terms. Basically, hazardous materials are materials or chemicals that are listed hazardous wastes or reactive, corrosive, ignitable or toxic. They generally fall under the jurisdiction of USDOT requirements.

Hazardous substances generally fall under the jurisdiction of OSHA and National Fire Codes.

Hazardous wastes generally fall under the jurisdiction of DEP and EPA for the storage, disposal, treatment and transportation requirements.

Hazardous products may fall under several jurisdictions.

For ease, hazardous materials in this section will include hazardous raw materials, hazardous products, hazardous substance and hazardous waste.

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(1)	Has the company determined whether it has hazardous wastes on site?	☐	☐	☐	☐
(2)	Has the company investigated whether it complies with all local, state and federal regulations concerning hazardous material storage, handling and disposal?	☐	☐	☐	☐
(3)	If the company uses, manufactures or stores chemicals at its site, is it in compliance with the federal mandate(under the SARA Title III Community-Right-to-Know law) to file inventory forms and chemical release information with a local emergency planning committee?	☐	☐	☐	☐
(4)	Has the company determined whether or not the business property is listed or is a candidate for listing in National Priority List or PA Superfund cleanup programs?	☐	☐	☐	☐
(5)	Has the company notified DEP of any proposed major change in use of a hazardous waste site?	☐	☐	☐	☐
(6)	Is local fire protection adequate and equipped to provide protection in the event of an accident or problem involving hazardous material?	☐	☐	☐	☐
(7)	If local fire protection is not adequate, is private fire protection provided?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(8)	Has the closest fire department been informed of the location and quantities of hazardous materials on site that have the potential to cause fire, explosions, releases of toxic gases or noxious odors?	☐	☐	☐	☐
(9)	For companies that use, store or manufacture hazardous materials, has an employee been designated and trained as a chemical emergency coordinator?	☐	☐	☐	☐
(10)	If the company stores hazardous materials on site, are emergency telephone numbers posted along with information about the location of emergency equipment?	☐	☐	☐	☐
(11)	If the business generates more than 1000 kilograms of hazardous waste in a month or stores more than 1000 kilograms of waste, has it obtained an EPA identification number?*	☐	☐	☐	☐
(12)	If the business generates more than 1000 kg per month of hazardous waste and/or is a generator that is permitted to store, treat or dispose of hazardous waste, has a source reduction strategy (SRS) been developed and is it maintained on site?*	☐	☐	☐	☐
(13)	Are the chemical names and inventory quantities of the raw materials stored and used on-site readily available along with Material Safety Data sheets?	☐	☐	☐	☐
(14)	Is information about the physical state or material properties (solid,liquid, gas) of all federally regulated hazardous substances used as raw materials stored and used on site continuously updated and readily available?	☐	☐	☐	☐
(15)	Is information about the storage methods on materials for all federally regulated hazardous materials used as raw materials continuously updated and readily available?	☐	☐	☐	☐
(16)	Are hazardous materials ordered on an as-needed basis to avoid stockpiling of hazardous materials?	☐	☐	☐	☐
(17)	Are all hazardous materials clearly labeled, dated, easily identifiable and regularly inspected for container leaks, corrosion, rupture or other failures?	☐	☐	☐	☐
(18)	Are hazardous materials stored so that they do not react with one another or with containers?	☐	☐	☐	☐

*1,000 kg or about 2,200 pounds or 300 gallons

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(19)	Are hazardous materials that would react or dissolve in water stored and segregated so that if a sprinkler system is activated they do not become a water pollution or other problem?	☐	☐	☐	☐
(20)	If the company is involved in lawn maintenance and agricultural activities and/or its employees use items such as pesticides, defoliants, fungicides, herbicides, insecticides, fertilizers and rodenticides, has the company been registered as a pesticide agency? Is the person applying these materials certified and are the items used being properly stored, handled and disposed?	☐	☐	☐	☐
(21)	Does the storage of hazardous materials comply with the National Fire Protection Act and state and local fire codes?	☐	☐	☐	☐
(22)	Are volatile compounds stored to minimize evaporation dangers?	☐	☐	☐	☐
(23)	Are the chances for spills, leaks and other accidents minimized during the handling of hazardous materials by use of conveyor belts, forklifts or specially-designated and trained personnel who move these materials?	☐	☐	☐	☐
(24)	If hazardous materials are produced at the facility, are these stored, inspected and transported in accordance with environmental and OSHA workplace regulations?	☐	☐	☐	☐
(25)	Are the chemical names, inventory levels and Material Safety Data sheets for these materials readily available and continuously updated?	☐	☐	☐	☐
(26)	Has proper disposal been arranged for any state and federally regulated hazardous wastes resulting from business operations?	☐	☐	☐	☐
(27)	Are hazardous materials stored in accordance with state and federal regulations?	☐	☐	☐	☐
(28)	Is care taken to properly segregate incompatible wastes and materials?	☐	☐	☐	☐
(29)	Is care taken to segregate hazardous wastes from non-hazardous wastes?	☐	☐	☐	☐
(30)	Is housekeeping in the waste storage area adequate?	☐	☐	☐	☐
(31)	Have measures been taken to prevent mixing of solvents or PCBs with used oil?	☐	☐	☐	☐

		YES	NO	NOT APPLICABLE	CAN'T DETERMINE
(32)	If any hazardous waste treatment, storage, disposal or recycling activities are conducted on site, have the appropriate DEP permits been obtained?	☐	☐	☐	☐
(33)	If the company contracts with a waste transporter for the disposal of its hazardous materials, does the transporter have a U.S. Environmental Protection Agency identification number and a Pa waste transporter license?	☐	☐	☐	☐
(34)	If the company disposes of its hazardous wastes at a waste Treatment, Storage and Disposal Facility (TSD), does the TSD have a U.S. Environmental Protection Agency identification number, and is the TSD permitted to accept the type of wastes the company produces?	☐	☐	☐	☐
(35)	If hazardous wastes are shipped to a TSD, does the business retain copies of shipping manifests for the required timeframe?	☐	☐	☐	☐
(36)	If the company ships hazardous wastes to a TSD for reclamation, does it retain copies of shipping manifests for the required timeframe?	☐	☐	☐	☐
(37)	Has the company performed operation, maintenance and monitoring activities at a remediated hazardous waste site and evaluated the remedy's performance and effectiveness?	☐	☐	☐	☐

Pollution Prevention -- Profit in Your Pocket

PPG Industries of Pittsburgh, Pa., a manufacturer of automotive windshields, reformulated the paint which is silk screened around the perimeter of the windshields. By converting to a lead-free ceramic-based enamel PPG was able to reduce its hazardous lead waste streams as well as making the lead-free windshields recyclable.

GE Transportation Systems of Erie, Pa., manufactures freight and passenger locomotives. GE initiated a centralized chemical management system to control scheduling, inventory, materials handling and storage. This system has resulted in a 50 percent reduction in the number of chemical products used, a 20 percent reduction in chemical purchasing costs and about a $900,000 reduction in chemical inventory.

Berg Electronics, Inc. located in Emigsville, Pa., manufactures electronic connectors for the electronics and telecommunications industries. Berg made process changes that use infrared heat curing for the molded plastic products instead of hot oil/Freon solvent degreasing, water-based cleaning to degrease and remove solder paste residue from product and equipment, lubricating systems that apply a minimum amount of oil to stamped products, nickel plating to replace hexavalent chromium plating, reverse osmosis process to treat and recycle nickel concentrate as well as other pollution prevention measures. With the new processes, Berg Electronics was able to eliminate such hazardous wastes as Freon, used 1,1,1 trichloroethane and used chrome plating solution. Waste water treatment sludge, used plating filters and ion exchange resin have all been reduced. By avoiding the cost of solvent purchases and hazardous waste disposal as well as some recycling of other wastes, Berg Electronics, Inc. estimates a total savings of $1.26 million per year. All process changes were paid back within one year. Added benefits are reduced environmental liability and increased employee protection.

GLOSSARY - TERMS AND LAWS

The following terms are commonly used by local, state and federal regulatory agencies when referring to laws and regulations. Most are not included in the text of this self-evaluation document, but are provided here for future reference.

ACM - Asbestos Containing Material

AIR CONTAMINANTS - Regulatory definition includes dust, fumes, gas, mist, odor, smoke, vapor and pollen.

AST - Above Ground Storage Tank

BENEFICIAL USE - Use or reuse of residual waste for commercial, industrial or governmental purposes, where the use does not harm or threaten public health, safety, welfare or the environment, or the use or reuse of processed municipal waste for any purpose, where the use does not harm or threaten public health, safety, welfare or the environment.

CAA - (Federal) Clean Air Act

CERCLA - (Federal) Comprehensive Environmental Response, Compensation and Liability Act of 1980. This Act provides authority and funding for the cleanup of past hazardous waste activities.

CFR - Code of Federal Regulations

CHEMOTHERAPEUTIC WASTE - Waste resulting from the production or use of anti-neoplastic agents used for the purpose of inhibiting or stopping the growth of malignant cells or killing malignant cells. The term does not include waste containing anti-neoplastic agents that are hazardous wastes.

CONSTRUCTION & DEMOLITION DEBRIS - Solid waste resulting from the construction or demolition of buildings and other structures, bricks, block and unsegregated concrete. The term also includes dredging waste. The term does not include the following, if they are separate from other waste and are used as cleanfill:

(i) uncontaminated soil, rock, stone, gravel, brick, block and concrete.

(ii) waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material.

COPRODUCT - A material generated by a manufacturing or production process, or an expended material, of a physical character and chemical composition that is consistently equivalent to or exceeds, the physical character and chemical composition of an intentionally manufactured product or produced raw material, if the use of the material presents no greater threat of harm to human health and the environment than the use of the product or raw material.

CORROSIVE - means the material dissolves metals and other materials, or burns the skin. Corrosive materials include rust or paint removers, acid or alkaline cleaning fluids, and battery acid. Material having a pH of 2.0 or lower, or 12.5 or higher is corrosive.

CWA - (Federal) Clean Water Act

DEP - Pennsylvania Department of Environmental Protection

DEP/EPA ID No. - Number issued by the EPA or the DEP to generators,transporters and TSD facilities to assist in the tracking of hazardous waste from cradle to grave.

DISCHARGE - The addition of pollutants into the environment.

DOT - (Federal) Department of Transportation. Regulates over road transportation of all materials, including solid and hazardous waste.

EARTHMOVING ACTIVITY - Construction or other activity which disturbs the surface of the land, including, but not limited to excavators, embankments, land development, subdivision development, mineral extraction and the moving, depositing or storing of soil, rock or earth.

EMISSIONS - The exit of pollutants into the outside air.

EMISSION SOURCE - Any apparatus capable of causing any emission of pollutant into the air.

EPA - (Federal) Environmental Protection Agency

FIFRA - Federal Insecticide, Fungicide, and Rodenticide Act

FUGITIVE AIR CONTAMINANT - An air contaminant of the outdoor atmosphere not emitted through a flue, including, but not limited to, industrial process losses, stock pile losses, reentrained dust and construction/demolition activity.

GENERATOR - Any person or business that produces a waste (hazardous or residual) usually from some sort of industrial process.

GENERATOR - Any person or business that produces municipal, residual or hazardous waste. Hazardous waste usually results from some sort of industrial process. Municipal waste usually results from residential or commercial uses. Residential waste usually results from industrial, mining or agricultural uses.

GROUNDWATER - Any water found beneath the earth's surface.

HAZARDOUS MATERIALS - Materials or chemicals that are reactive, corrosive, ignitable or toxic.

HAZARDOUS WASTE - Solid, liquid or gaseous waste from municipal, commercial, industrial or institutional operations which because of its quantity, concentration or physical or chemical characteristic may pose a hazard to human health or the environment when improperly managed.

IGNITABLE - means the material catches fire easily. Ignitable materials include many organic solvents, some paint wastes and strong oxidizing agents. A liquid is ignitable if it has a flash point of less than 60 degrees Centigrade (140 degrees Fahrenheit).

INFECTIOUS WASTE - Municipal and residual waste which is generated in the diagnosis, treatment, immunization or autopsy of human beings or animals, in research pertaining thereto, in the preparation of human or animal remains for interment or cremation, or is the production or testing of biologicals.

LANDFILL - A disposal facility at which solid waste, or its residue after treatment, is intentionally placed in or on land, and at which solid waste will remain after closure and which is not a land application activity, a surface impoundment, or an injection well.

LEACHATE - Liquid that results from water collecting contaminants as it trickles through wastes as in a landfill.

MANIFEST - Document which is required to accompany a hazardous waste from cradle (generator) to transporter to grave (disposal facility).

MSDS - Material Safety Data Sheet distributed by the manufacturer of the chemical and contains information about safe and proper use and exposure to hazardous chemicals-must be available to employees for inspection(Right-To-Know Act).

MUNICIPAL WASTE - Garbage, refuse, lunchroom or office waste, and any other waste, liquid, solid, or semi-solid resulting from the operation of a residential, municipal, commercial or institutional establishment.

MUNICIPAL WASTE LANDFILL - A facility using land for the disposal of municipal waste.

NESHAPS - National Emissions Standards for Hazardous Air Pollutants

NORMAL FARMING OPERATIONS - Customarily and generally accepted farming activities that are conducted in a way that do not pollute the air, water or other natural resources. The term also includes the utilization of certain farm wastes for use on land where the materials will improve the condition of the soil, the growth of crops or in the restoration of land.

NPDES - National Pollutant Discharge Elimination System. Federal permits for discharge into water.

OSHA - Occupational Safety and Health Administration - Division of the Department of Labor. This federal agency regulates work place safety through the establishment of threshold limits on exposure to designated hazardous chemicals including asbestos and carcinogens.

PERMIT - Authorization or a license issued by DEP or EPA.

POINT SOURCE - Any discernible, confined and discrete conveyance from which pollutants are discharged, such as a pipe, ditch or tunnel.

POLLUTION PREVENTION - Source reduction and other practices (e.g. direct reuse or in-process recycling), that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water or other resources, or protection of natural resources by conservation.

POTW - Publicly-Owned Treatment Works. Wastewater treatment facility designed to treat waste waters from homes and industry, and owned by a municipality.

RCRA - Resource Conservation Recovery Act - federal law which regulates solid and hazardous waste, its generation, transportation, treatment and storage.

REACTIVE - includes materials that undergo violent chemical reaction with water, can generate toxic gases.

RESIDUAL WASTE - Garbage, refuse, other discarded material or other waste including solid, liquid, semi-solid or gaseous materials resulting from industrial processes.

SARA - (Federal) Superfund Amendments and Reauthorization Act of 1986,amendments to CERCLA includes Title III that establishes the Emergency Planning and Community Right-to-Know Act giving the public greater access to information concerning specific hazardous chemicals and establishing emergency response contacts and reporting requirements at state and local levels.

SANITARY SEWER - System of pipes which convey waste to a POTW where it is treated before being discharged into the waters of the state.

SMALL BUSINESS - A small business as defined by the Small Business Administration (SBA) regulations at 13 CFR Part 121. Contact the SBA or your local Small Business Development Center for questions regarding designation as a small business. Telephone numbers are listed in this guide on pages 32 and 34 respectively.

STORM SEWER - System of pipes for channeling of surface runoff (rain) into surface waters such as lakes, streams and ditches.

SOURCE REDUCTION STRATEGY (SRS) - A written summary of how the generator proposes to reduce waste, based on the results of internal studies and evaluations of waste sources, equipment, costs, technologies, etc. The strategy will describe any source reduction activities during the past five years and projected activities for the next five years.

SURFACE COATINGS - Include, but are not limited to: paint, asbestos, mastics, tars, pitch, waterproofing, varnish, wood preservatives,primers, sealers, graphic arts coatings, topcoats, shellac and lacquer, concrete curing compounds, stains, tire-like coatings, roof coatings, vinyl coatings, etc.

TOXIC - means that the materials, chemicals or fumes may be noxious, poisonous, venomous, virulent or pestilent. Toxic substances also may have high concentrations of heavy metals such as mercury, cadmium, lead or certain pesticides that could contaminate surface or groundwater and/or air, or may contain a number of organic chemicals.

TRANSFER FACILITY - A facility which receives and temporarily stores municipal and residual waste at a location other than the generation site and which facilitates the bulk transfer of accumulated waste to a facility for further processing or disposal.

TRANSFER FACILITY (hazardous waste) - A transportation related facility, including loading docks, parking areas, storage areas and other similar areas, where shipments of hazardous waste are held during the normal course of transportation.

TRANSPORTER - Person or business engaged in the off-site transportation of municipal, residual and/or hazardous waste.

TSCA - (Federal law) Toxic Substances Control Act

TSD FACILITY - Treatment, Storage, Disposal Facility site where hazardous wastes or substances are treated, stored or disposed.

USED OIL - A petroleum based or synthetic oil which is used in an internal combustion engine as an engine lubricant or as a product for lubricating any motor vehicle transmissions, gears or axles, which through use, storage or handling has become unsuitable for its original purpose due to the presence of chemical or physical impurities or loss of original properties.

USDOT - United States Department of Transportation

UST - Underground storage tank

VOC - Volatile Organic Compound - An organic compound which participates in atmospheric reactions, that is, an organic compound other than those which the EPA designates as having negligible photochemical reactivity.

WASTE OIL - Oil refined from crude oil or synthetically produced, used and as a result of use, contaminated by chemical or physical impurities. The term includes used oil.

LOCAL AND STATE CONTACTS

- **Municipal and county governments should be contacted directly for information about local zoning, sewage, water treatment, planning, subdivision/land development and related ordinances.**
- State regulations are administered by the Pennsylvania Department of Environmental Protection. Any questions regarding general information, checklists provided or permits, please contact your regional office.
- For information about mining operators and requirements, contact DEP at 717-783-3517 or 717-783-5338.

DEP "800" NUMBERS AND ELECTRONIC ACCESS

Information	
Emergency Response	800-541-2050
AIRHELP Business Assistance	800-772-4743
Low-Level Radioactive Waste	800-232-2786
On-Lot Sewage	800-282-9254
Radon	800-237-2366
Recycling	800-346-4242
Storage Tanks	800-428-2657
AT&T Relay Service	800-654-5984

Electronic Access to DEP	
DEP World Wide Web Site	http://www.dep.state.pa.us
To Request Publications	DEPINFO@al.dep.state.pa.us
Ask Questions About DEP	ASKDEP@al.dep.state.pa.us
Environmental Protection Update	DEPUDATE@al.dep.state.pa.us
Land Recycling Program	LandRecycling@al.dep.state.pa.us
Clean Air Information	CleanAIR@al.dep.state.pa.us

For Pollution Prevention and Compliance Assistance Information: Select the Pollution Prevention heading at the DEP Web Site - http://www.dep.state.pa.us.
For more information about other programs offered by DEP, visit our web site at http://www.dep.state.pa.us

OTHER STATE AGENCIES

Underground Storage Tank Indemnification Fund
(USTIF)
901 North 7th Street
Harrisburg, PA 17102
(717) 787-0763

Storage Tank Loan Fund
Division of Loans and Technical Assistance
PA Department of Community and Economic Development
490 Forum Building
Harrisburg, PA 17120
(717) 783-5046

FEDERAL GOVERNMENT CONTACTS

U.S. Environmental Protection Agency
Region III
Business Assistance Center
841 Chestnut Building
Philadelphia, PA 19107
1-800-228-8711

RCRA (Hazardous Waste) Hotline
1-800-424-9346

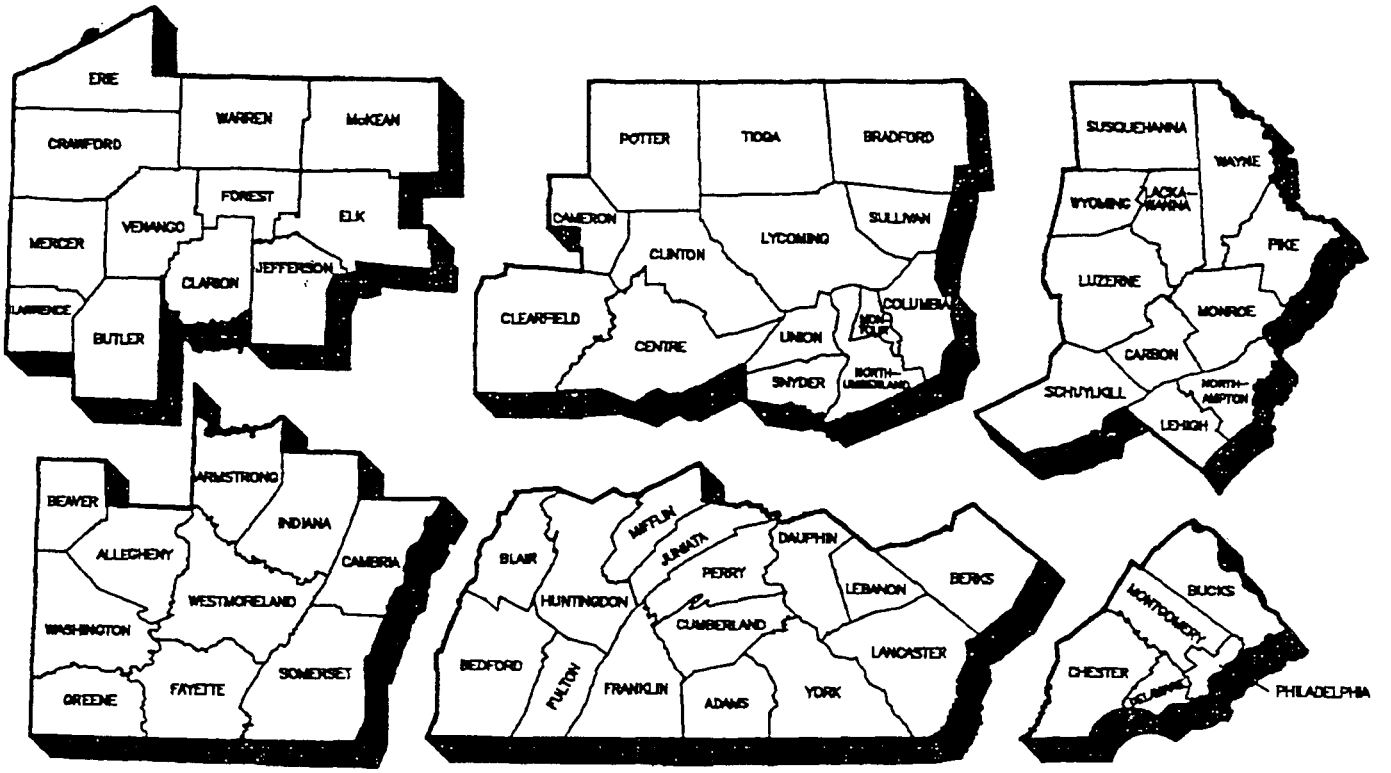
U.S. Small Business Administration
475 Allendale Rd.
King of Prussia, PA 19406
(610) 962-3700

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S REGIONAL STAFF

NORTHWEST REGION	
230 Chestnut St.	
Meadville, PA 16335-3481	
General Information:	(814) 332-6945
Air Program:	(814) 332-6940
Water Program:	(814) 332-6942
Storage Tanks Program:	(814) 332-6648
Waste Program:	(814) 332-6848
Pollution Prevention Program:	(814) 332-6816

NORTHCENTRAL REGION	
208 W. Third St., Suite 101	
Williamsport, PA 17701-6448	
General Information:	(717) 327-3636
Air Program:	(717) 327-3637
Water Program:	(717) 327-3669
Storage Tanks Program:	(717) 327-3657
Waste Program:	(717) 327-3653
Pollution Prevention Program:	(717) 327-0537

NORTHEAST REGION	
2 Public Square	
Wilkes-Barre, PA 18711-0790	
General Information:	(717) 826-2511
Air Program:	(717) 826-2531
Water Program:	(717) 826-2553
Storage Tanks Program:	(717) 826-2353
Waste Program:	(717) 826-2516
Pollution Prevention Program:	(717) 826-2511



SOUTHWEST REGION	
400 Waterfront Drive	
Pittsburgh, PA 15222-4745	
General Information:	(412) 442-4000
Air Program:	(412) 442-4028
Water Program:	(412) 442-4028
Storage Tank Program:	(412) 442-5811
Waste Program:	(412) 442-4120
Pollution Prevention Program:	(412) 442-4343

SOUTHCENTRAL REGION	
1 Ararat Boulevard	
Harrisburg, PA 17110	
General Information:	(717) 657-4588
Air Program:	(717) 657-4587
Water Program:	(717) 657-4590
Storage Tanks Program:	(717) 657-4592
Waste Program:	(717) 657-4588
Pollution Prevention Program:	(717) 657-4121

SOUTHEAST REGION	
Lee Park, Suite 6010	
55 North Lane	
Conshohocken, PA 19428-2233	
General Information:	(610) 832-6212
Air Program:	(610) 832-6242
Water Program:	(610) 832-6131
Storage Tanks Program:	(610) 832-5950
Waste Program:	(610) 832-6213
Pollution Prevention Program:	(610) 832-6212

OTHER TECHNICAL ASSISTANCE PROVIDERS

AIRHELP/PA Small Business Assistance Program (SBA)
AIRHELP HOTLINE-1-800-PA AIRHELP
c/o PRC Environmental Management, Inc.
1800 JFK Boulevard, Sixth Floor
Philadelphia, PA 19103
The SBA Program:

- helps small business owners understand and comply with air pollution regulations
- keeps all inquiries confidential
- offers free environmental audits and permit application reviews
- administers the Air Quality Improvement Fund, a source of low interest loans

Ben Franklin Partnership Centers

Central and Northern PA	(814) 863-4558
Northeastern PA	(610) 758-5206
Southeastern PA	(215) 382-0320
Western PA	(412) 681-1520

- develop strategic relationships between private sector, universities and government for the research and development of new or improved products or processes

Center for Hazardous Material Research
Harry Pavone, Business Development Rep.
University of Pittsburgh
Applied Research Center
320 William Pitt Way
Pittsburgh, PA 15238
(412) 826-5320

- provides environmental technology and educational services related to environmental protection and pollution prevention and compliance assistance

Concurrent Technologies Corporation
Mark Funyak, Facility Engineering Manager
1450 Scalp Avenue
Johnstown, PA 15904
1-800-282-4392

- assists the industrial base through research, development, deployment, training and education activities in the solution of manufacturing problems

Electrotechnology Applications Center
Thomas Shaughnessy, Director
3835 Green Pond Road
Bethlehem, PA 18017-7599
(610) 861-5081

- allows manufacturers to test new technologies to apply coatings and to dry parts and products
- the 9,100 square foot ETAC houses equipment that demonstrates new, high-efficiency electric technologies

Industrial Resource Centers

Bethlehem	(610) 758-5599
Duquesne	(412) 469-3530
Erie	(814) 456-6299
Montoursville	(717) 368-8361
Philadelphia	(215) 464-8550
University Park	(814) 863-8433
Wilkes-Barre	(717) 819-8966
York	(717) 843-5054

- provide technical and financial assistance for implementing projects to improve productivity and quality

Pennsylvania Technical Assistance Program (PENNTAP)

Central	(814) 865-0427
Eastcentral	(610) 758-4565
Northeast	(717) 655-5337
Northwest	(814) 898-6139
Southcentral	(717) 848-6669
Southeast	(610) 648-3298

- provides technical assistance and information to specific questions or problems

Pennsylvania Small Business Development Centers
University of PA
The Wharton School
423 Vance Hall
3733 Spruce Street
Philadelphia, PA 19104-6374
Phone: (215) 898-1219

- a network of 16 colleges across the state to provide free management consulting, education, and seminars, along with working with small businesses to locate sources of funding

OFFICE OF POLLUTION PREVENTION AND COMPLIANCE ASSISTANCE PUBLICATIONS

- Environmental Protection UPDATE
  (DEP's Weekly Periodical - Call DEP's Press Office at (717) 783-1323 to request a hard copy or access via our www page.)

Partners in Prevention 0200-PA-DEP1995
Creating a Partnership - DEP's Approach to Pollution Prevention 0130-FS-DEP1980
ISO 14000 and Your Business 0130-FS-DEP1985
Would You Like to Save Time and Money? 0130-FS-DEP1979
Commonwealth Technical Assistance Providers 0130-FS-DEP1986
1996 Governor's Awards for Environment Excellence Application Form 0200-FM-PPCA0001
The Governor's Awards for Environmental Excellence
The Governor's Waste Minimization Award Winners/Case Studies Booklet 0130-FS-DEP1981
The Governor's Waste Minimization Awards - 1995 Winners 2520-PA-DEP1908

POLLUTION PREVENTION $UCCESS $TORIES

COMPANY	WASTE	REDUCTION METHOD	INDUSTRY
Berg Electronics Inc. 0200-FS-DEP1569	Freon 1,1,1-trichloroethane 1,4-dioxane	Process change Raw materials substitution	Electronic
Carpenter Technology 0200-FS-DEP1578	Acid 1,1,1-trichloroethane Coolant	Process change Raw materials substitution	Stainless Steel
Leff-Marvins Cleaners Inc. 0200-FS-DEP1579	Perchloroethylene	Process modification	Dry Cleaning
Merck & Company Inc. 0200-FS-DEP1581	Methylene chloride	Process modification Raw materials substitution	Pharmaceutical
R. H. Sheppard Co., Inc. 0200-FS-DEP1582	Foundry sand Coolant water	Process modification Direct recycle	Foundry
The Knoll Group 0200-FS-DEP1582	Organic solvents	Raw materials substitution Two process changes	Office Furnishings

Limited quantities of the following EPA documents are also available from DEP or contact the EPA.

U.S. EPA GUIDES TO CLEANER TECHNOLOGIES

A Primer for Financial Analysis of Pollution Prevention Projects	EPA/600/R-93/059
Alternatives to Chlorinated Solvents for Cleaning and Degreasing	EPA/625/R-93/016
Organic Coating Removal	EPA/625/R-93/015
Cleaning and Degreasing Process Changes	EPA/625/R-93/017

U.S. EPA INDUSTRY-SPECIFIC GUIDES TO POLLUTION PREVENTION

Paint Manufacturing	EPA/625/7-90/005
Fabricated Metal Products	EPA/625/7-90/006
Printed Circuit Boards	EPA/625/7-90/007
Selected Hospital Waste Streams	EPA/625/7-90/009
Research & Education Institutions	EPA/625/7-90/010
Photoprocessing	EPA/625/7-91/012
Automotive Repair	EPA/625/7-91/013
Fiberglass Reinforced & Composite Plastics	EPA/625/7-91/014
Marine Maintenance & Repair	EPA/625/7-91/015
Automotive Refinishing	EPA/625/7-91/016
Pharmaceuticals	EPA/625/7-91/017
Mechanical Equipment Repair	EPA/625/R-92/008
Metal Casting & Heat Treating	EPA/625/R-92/009
Metal Finishing	EPA/625/R-92/011
Non-Agricultural Pesticide Users	EPA/625/R-93/009
Wood Preserving	EPA/625/R-93/014

U.S. EPA SECTOR NOTEBOOKS

Currently, these notebooks are available on Internet only. Access to Sector Notebooks is available through the following World Wide Web address: http:/wastenot.inel.gov/envirosense/

Dry Cleaning	EPA/310-R-95-001
Electronics and Computers	EPA/310-R-95-002
Wood Furniture & Fixtures	EPA/310-R-95-003
Inorganic Chemicals	EPA/310-R-95-004
Iron and Steel	EPA/310-R-95-005
Lumber & Wood Products	EPA/310-R-95-006
Fabricated Metal Products	EPA/310-R-95-007
Metal Mining	EPA/310-R-95-008
Motor Vehicle Assembly	EPA/310-R-95-009
Nonferrous Metal	EPA/310-R-95-010
Non-Fuel, Non-Metal Mining	EPA-310-R-95-011
Organic Chemical	EPA/310-R-95-012
Petroleum Refining	EPA/310-R-95-013
Printing and Publishing	EPA/310-R-95-014
Pulp and Paper	EPA/310-R-95-015
Rubber and Plastic	EPA/310-R-95-016
Stone, Clay, Glass & Concrete	EPA/310-R-95-017
Transportation Equipment Cleaning	EPA/310-R-95-018

EVALUATION FORM

Your comments would be greatly appreciated.

		YES	NO
(1)	Is the guide helpful and easy to understand? If not, why?	☐	☐
(2)	Would you recommend this Guide to others? Why?	☐	☐
(3)	What improvements could be made?		
(4)	Do you feel you have a better understanding of state environmental regulations after using this Guide?	☐	☐
(5)	Please tell us what you liked about the Guide, so we can make the 2nd edition more useful to you.		
(6)	Please tell us how we can improve the Guide.		
(7)	Was it clear that the Guide did not address compliance with all environmental regulations? If not, please tell us how we can correct this problem?	☐	☐
(8)	What other information resources or "tools" would you like to see DEP develop and add to the "tool box" it is preparing for small business?		
(9)	If you do not mind, please fill out your name, company name and address, and the type of business you are in:		

Thank you for taking the time to help us improve the Guide.

Please return to:

Erica Clayton
Information Specialist
Department of Environmental Protection
Office of Pollution Prevention and Compliance Assistance
16th Floor, Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063
FAX 717-783-8926