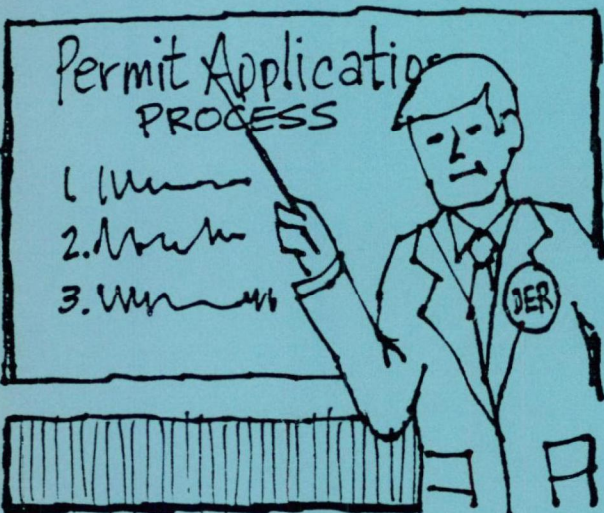
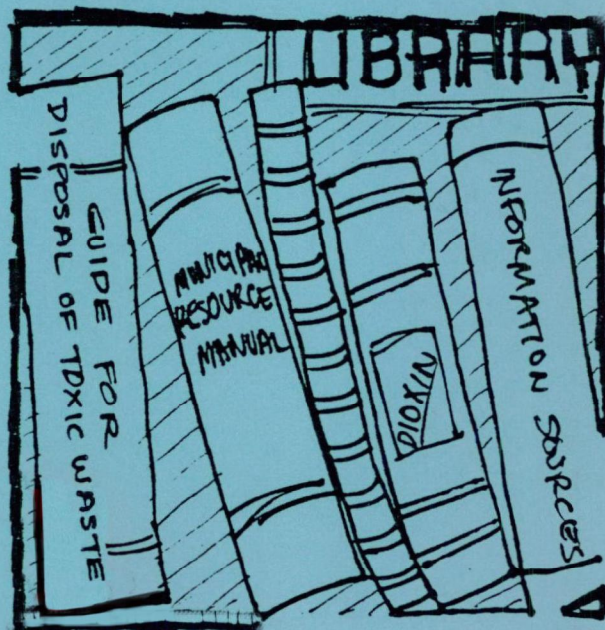
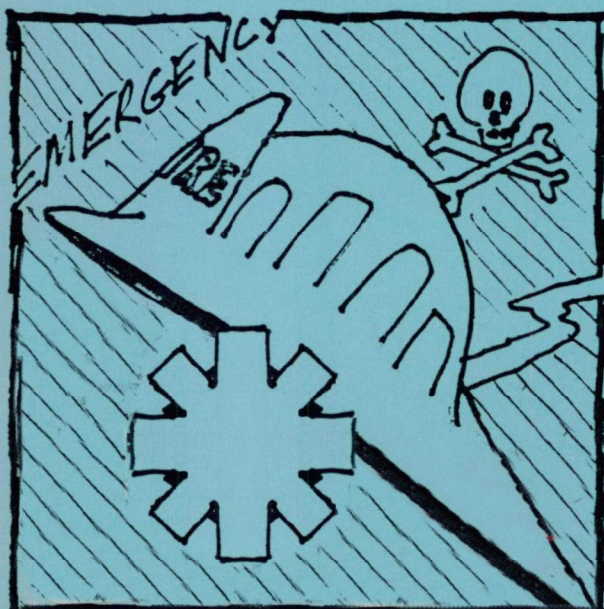




SITING HAZARDOUS WASTE FACILITIES

A GUIDE
FOR LOCAL
GOVERNMENTS



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SITING HAZARDOUS WASTE FACILITIES

A GUIDE FOR LOCAL GOVERNMENT

August, 1986

U.S. Environmental Protection Agency
Region III Information Resource
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THIS HANDBOOK HAS BEEN WRITTEN FOR THE
GROUP AGAINST SMOG AND POLLUTION

BY

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PENNSYLVANIA CONSTITUTION

Article 1, Section 27

"The People have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all people, including generations yet to come. As trustee of the resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."

SITING HAZARDOUS WASTE FACILITIES

A Guide for Local Governments

I.	INTRODUCTION	1
II.	ROLES AND RESPONSIBILITIES OF LOCAL ELECTED OFFICIALS	5
	Introduction	5
	Corporate Powers and Hazardous Waste Facilities	6
III.	PLANNING AND ZONING	9
	Introduction	9
	Why Zone	9
	Comprehensive Plan	11
	Zoning	12
	Conditional Uses and Special Exceptions	14
	Preemption	15
	Conclusion	16
IV.	THE STATE SITING CRITERIA	19
	Introduction	19
	Phase I	20
	Phase II	22
	Zoning and the Siting Criteria	26
	A Hazardous Waste Developer's Siting Criteria	27
	Conclusions	28
V.	THE PERMITTING PROCESS	29
	Introduction	29
	Permitting Process -- The Facility Owner	29
	Part A	30
	Part B	30
	The Application Process and Commenting	33
	Commenting	35
	Licensing Process -- The Transporter	36
	Commenting	38
	Conclusions	38
	CERTIFICATE OF PUBLIC NECESSITY	39
	Introduction	39
	Hazardous Waste Facilities Plan	41
	Public Participation Program	42
	Conclusion	42

VI. EMERGENCY MANAGEMENT	43
Introduction	43
Legal Authority	44
Comprehensive Emergency Management	46
Developing a Plan	47
Municipality Information	48
Facility Information	48
Warning System	49
Emergency Management Coordinator	50
Emergency Services Personnel Training	51
Equipment	52
Establishing Rapport with Facility Operator	52
Making Emergency Management Plan Public	52
Testing the Plan	53
The Facility Owner's Responsibilities	53
Transporter's Responsibilities	54
Conclusions	54
VII. NEGOTIATING	55
Introduction	55
Why Negotiate	56
When Should Negotiations Begin?	56
What is Negotiable?	57
Fundamentals of Negotiation	61
How to Negotiate	62
Do's and Dont's of Negotiation	63
Using a Mediator	65
VIII. COLLECTING AND DISSEMINATING INFORMATION	67
Introduction	67
Collecting Information	68
What Information Should be Collected?	68
Where to Get the Information	72
Pennsylvania State Agencies	72
Out-of-State Agencies	72
Federal Agencies	73
Miscellaneous Organizations	73
Disseminating Information	74
IX. BIBLIOGRAPHY	75

X. APPENDICES

- A Glossary
- B List of Acronyms
- C State Government Addresses
- D Organizations with Environmental Concerns
- E Solid Waste Advisory Committee
- F Groups and Individuals Involved in
Environmental Conflict Resolution
- G Environmental and Citizens Organizations
- H Federal and State Environmental Offices
- I Municipal Notification of Permit Application
Instruction Sheet
- J DER Hazardous Waste Facilities Siting Criteria
- K Hazardous Waste Permit Application - Part A
- L Applicant Guidelines for Module 9
- M Module 10 - Compliance History
- N Guidelines for Preparedness, Prevention and
Contingency (PPC) Plans
- O Instructions for Applying for Hazardous Waste
Transporter License/Hazardous Waste
Transporter Application
- P Collateral Bond Form
- Q Hazardous Waste Manifest Form
- R Guidelines for Hazardous Waste Transporter
PPC Plan

I. INTRODUCTION

As the effects of past disposal practices of hazardous wastes become increasingly apparent, more and more citizens are adopting the "not in my backyard" attitude towards siting hazardous waste facilities. It is no wonder that this attitude, known as the NIMBY syndrome, has developed. Many people have had serious ill effects from polluted water and air caused by irresponsible hazardous waste disposal. No one wants to live near a "dump" and risk losing his health, family and property. However, this attitude will not make our hazardous waste situation disappear. While industries must accept the responsibility for reducing the amount of hazardous wastes produced, some facilities will be needed to handle hazardous wastes.

Pennsylvania industries generate about five million metric tons of hazardous wastes per year.¹ Steel, chemicals, textiles, lumber, pharmaceuticals, soaps, paint, printing, plastics, leather, metal and transportation are a few of the industries which generate hazardous wastes in the Commonwealth. About 15% of these

wastes are shipped off-site; 85% are handled on-site where the wastes are generated. On-site facilities include facilities located at the place where the wastes are generated and facilities away from the place of generation but owned by the generator. Of the wastes shipped off-site, about 72% are transported to facilities within the Commonwealth and 28% are shipped out-of-state (1984 figures). Because a large number of facilities have been closed in Pennsylvania, it is expected that more wastes will be shipped out-of-state.

This may seem like an ideal situation -- to ship our hazardous wastes to another state, to someone else's backyard. We, then, won't worry about our water becoming contaminated or our environment becoming polluted. But this is not a responsible approach to solving our hazardous waste dilemma. What happens when the states that now accept our wastes refuse them? Will we be prepared to manage our hazardous wastes then?

In 1982, sixteen treatment and disposal facilities were in operation

¹ Pennsylvania Hazardous Waste Facilities Plan. Pennsylvania Department of Environmental Resources. November, 1985. Harrisburg, Pennsylvania.

in Pennsylvania. Of these, only seven were operating as of July 1, 1985. Only one of these facilities provides disposal services and this one will close on June 30, 1987. According to a study conducted by Environmental Resources Management (ERM) for the Department of Environmental Resources, two landfills with a combined capacity of 200,000 metric tons per year will be needed in Pennsylvania. One should be located in the western half and one in the eastern half of the state. The study also concludes that other types of facilities will be needed. These include:

<u>Technology</u>	<u>Capacity</u> <u>(metric tons/year)</u>
Incineration	70,000
Wet Air Oxidation	45,000
Advanced Thermal Destruction	40,000
Full Service Aqueous Treatment	300,000

These facilities will need to be sited in municipalities somewhere in the Commonwealth. What does this mean to an elected official? How can one prepare to deal with such a situation in the municipality?

First, elected officials should know their municipality. They should know what industries are in the municipality, if these industries generate hazardous wastes, how they handle their wastes and where they are shipped if shipped off-site.

Second, elected officials should develop a comprehensive plan for the municipality and adopt zoning and subdivision ordinances to control development of all kinds, not just hazardous waste facilities.

Third, elected officials should assess local emergency response capabilities and determine if the equipment and training of personnel are adequate to meet the demands of the municipality.

Finally, elected officials should become knowledgeable about the hazardous waste issue. They should gather information about where wastes are generated in Pennsylvania, how they are disposed, the kinds of technologies available to handle hazardous wastes, the potential adverse impacts waste disposal has on the environment and the health of people living near a disposal site and the roles and responsibilities of an elected official. Only in this way will elected officials be prepared for this issue.

The purpose of this handbook is not to encourage or discourage siting

of hazardous waste facilities within a municipality, but to provide information to elected officials who may find themselves involved in siting a hazardous waste treatment, storage, or disposal (TSD) facility, so that they can approach the issue from an informed and rational position.

The handbook will provide information to help to prepare elected officials before the hazardous waste facility siting issue is brought to the municipality. This includes planning and zoning and the State siting criteria for hazardous waste facilities. It also provides information on steps to take after a municipality is chosen as a possible host for a hazardous waste facility. This

includes emergency response, the permitting process, the Certificate of Public Necessity and negotiating. Also included in this handbook are sample copies of permit applications for treatment, storage and disposal facilities, the transporters of hazardous wastes application, Modules 9 and 10, a bibliography and a glossary of hazardous waste terms as well as terms associated with local government. A list of State and Federal agencies with addresses and phone numbers is also provided in the appendices. It is hoped that this handbook will be a valuable tool for elected officials and citizens who are involved in or may become involved in siting a hazardous waste TSD facility.

II. THE ROLE OF THE ELECTED OFFICIAL

INTRODUCTION

Elected officials of a municipality constitute the governing body which has certain roles and responsibilities that are stated in the applicable municipal code. The governing body is responsible for the health, safety and welfare of the citizens of the municipality. Their role in local government is to establish policy, to make decisions for the municipality and to assure that municipal operations run smoothly. The codes give corporate powers to the governing body of the municipality. These powers enable governing bodies to adopt ordinances ranging from no-parking zones to zoning to building codes to open burning regulations. In addition, financial management, fire protection, roads, health, public safety and community development are a few of the many responsibilities the governing body is given in the municipal codes.

Generally, the municipal codes give the governing body the power to "make and adopt all such ordinances, by-laws, rules, regulations not inconsistent with or restrained by the Constitution and laws of this Commonwealth as may be deemed expedient or necessary for the proper management, care and control of the municipality and its finances and the maintenance of peace, good government and welfare of the municipality and its trade, commerce, and manufacture."²

The power to zone which is granted by the Municipalities Planning Code enables a municipality to control how its land is used and how structures are built. This is very important since this enables a municipality to control its destiny, if it chooses to do so, through zoning and other land use regulations.

² Pennsylvania, First Class Township Code, (1949 as amended) P.L. 1955, Do. 569, Sec. Art. XV, Sec. 1501 (LII), p. 15:18.

Elected officials of Home Rule Municipalities have broader power and are not subject to the municipal codes (borough, township, city, county). However, the Municipal Planning Code also applies to Home Rule Municipalities.

CORPORATE POWERS AND HAZARDOUS WASTE FACILITIES

As with any land use, zoning powers also apply to hazardous waste facilities, although regulation of engineering and structural design is reserved by the Department of Environmental Resources (DER). However, governing bodies of municipalities can protect the health and safety of their citizens by adopting zoning ordinances which keep separate residential and industrial areas. A hazardous waste facility may be allowed by right or may have to be treated as a special exception to an area already zoned for industrial uses. In this way, air, noise, soil and water pollution to residential areas can be minimized or eliminated. In addition, certain roads can be designated as routes for transporting hazardous waste. It should be noted that while the governing bodies are given the power to adopt ordinances and other rules, these cannot conflict with or be inconsistent with Pennsylvania laws and regulations. Therefore, the governing body should refer to the law and regulations

regarding hazardous waste facilities before adopting any ordinances directed towards these facilities. Zoning is discussed in more detail in Chapter III.

In addition to zoning the governing body can protect the residents of the municipality through emergency preparedness. The governing body is required by the Emergency Services Code to nominate an emergency management coordinator (EMC) who is appointed by the Governor. The EMC is responsible for developing an emergency response plan. This plan not only pertains to accidents involving hazardous wastes, chemicals and radioactive materials, but also includes natural disasters such as floods, tornados and landslides. Under the Emergency Services Code, the governing body is mandated to appoint a coordinator and adopt an emergency plan. For more information on emergency management refer to Chapter VII.

If the siting process has reached the point where the governing body and the developer feel that negotiations are appropriate, negotiations can take place. The governing body cannot negotiate away any of the rights of the municipality, however, the governing body can use negotiations to further protect the residents of the municipality. Only the governing body has the authority to negotiate for the municipality.

Negotiable items can be anything from the developer upgrading existing roads or building new ones to the developer providing emergency training and equipment to the developer supplying alternative drinking water supplies. A member of the governing body can negotiate or the governing body can hire a professional negotiator or designate a negotiator from the municipality. In any event, only the governing body can make the final decision as to whether or not to accept the results of the negotiations. Individuals who will be affected by the facility must negotiate their own interests. Negotiating is discussed in more detail in Chapter VII.

Although there are some limits, a governing body is not powerless in protecting the municipality. Through zoning, emergency preparedness, negotiations and an understanding of the hazardous waste management problems facing the Commonwealth, the governing body can take measures to protect the health and safety of the residents of the municipality. The governing body should be involved in all phases of the siting process and should understand hazardous waste law and regulations. **Remember, only the governing body has the authority to make decisions regarding the municipality.** Therefore, the governing body must assume responsibility.

III. PLANNING AND ZONING



INTRODUCTION

In the past zoning has been viewed as a negative instrument to prohibit individuals from using their land and property as they wish. However, as haphazard and undesirable development has occurred causing major problems in municipalities, the benefits of zoning have become apparent. More and more municipalities are discovering the benefits of zoning to guide and control growth and development and therefore to provide a better community for everyone to live, work and play in. Although this chapter will address zoning as related specifically to hazardous waste treatment, storage and disposal (TSD) facilities, this information can be

equally applied to zoning of all kinds of land uses. Zoning is a positive tool used to meet community goals. If done properly through development of a sound Comprehensive Plan and then strictly followed, zoning is a beneficial land use control mechanism which addresses the needs of the community while protecting the health, welfare and safety of the residents of the community.

WHY ZONE?

Many municipalities have discovered that without zoning they have little or no control over what comes into the municipality. After

development has occurred, zoning cannot be used to reverse it. The municipality is stuck with any development which occurs whether it is good or bad.

In Yukon, Westmoreland County, such undesirable development has occurred. The residents are feeling the effects of a hazardous waste disposal facility built over twenty years ago. At that time (and to this day) the township had no zoning. The residents and township have no control over the expansion of the facility or any other kind of development that might occur.

In Butler County, after 700 acres of land had been mined, the owner decided that he would fill in the area by accepting hazardous wastes. Although the nearby residents vehemently opposed these activities, they were unable to stop them. No zoning existed in the township where the property was located. Not until after groundwater was contaminated and a nearby state park threatened was the landowner forced to close the operation.

In Lawrence County, residents near New Castle were alerted to the possibility that a hazardous waste facility might be developed in their township. The township had no zoning until faced with this facility. The developer has taken the township to court. At this writing no decision

has been handed down.

These stories can be repeated all across the state. In a municipality without zoning or other land use control ordinances, a landowner can sell or lease his land or building, without first notifying the municipality of his intentions. The municipality has no control over the use of the land or how the building is constructed. In many cases, municipalities that do not have zoning in place also lack building codes (safety features such as fire escapes, smoke detectors, sprinkling systems, occupancy limits, etc.). The lack of building codes and land use controls could lead to lowered land values (subsequently lower revenues), safety hazards, increase in traffic congestion, population decline and other problems associated with poor planning. The municipality has placed its destiny into the hands of the developers. In addition, there are no means by which residents are informed of the intended use of land or other property. Therefore, there is no opportunity for citizen participation.

If a municipality has been zoned or has other land use control ordinances, any land use involving changes must be posted in the public notices. In this way, residents are informed of the proposed changes and therefore have an opportunity to voice their opinions and concerns.

An exception to this is a certain land use that is permitted by right in a zoned area. In this case there is no opportunity for public involvement. For this reason, certain land uses which may be hazardous or pose special problems are treated as special exceptions or conditional uses. A hazardous waste TSD facility can be treated in this way. Public notices and public hearings are required through this type of land use mechanism. In this way the public has an opportunity to express concerns. Special exceptions and conditional uses are discussed in more detail later in this chapter.

There is another reason to zone. In September 1985, the Department of Environmental Resources (DER) published its rules and regulations regarding siting of hazardous waste treatment and disposal facilities. In Section 75.445 (a), an important land use provision is stated affecting municipalities without zoning: "Where no zoning exists, the applicant shall provide information and analysis to allow the Department to assess compatibility with existing land use." In other words, DER determines the compatibility of a hazardous waste TSD with existing land uses. DER makes the decision of land use compatibility instead of the local government, where land use decisions should be made. That same section goes on to say: "Treatment and disposal facilities located on

lands either designated for industrial use by existing municipal zoning or indicated as industrial in officially adopted county or municipal comprehensive plans or land use maps are deemed to be acceptable. If this standard cannot be met, the applicant shall provide information and analysis to allow the Department to assess the compatibility of the design of the proposed facility with zoning or land use controls." It appears that DER will consider zoning ordinances a county or municipality has adopted. It rests with the applicant to make a good case as to why the facility should be placed on that particular site. The municipality maintains control over its growth and development.

With zoning, a municipality has some control over its growth and development. The integrity of residential areas can be preserved. Areas of the municipality can be set aside for commercial and industrial growth. Land can be preserved for parks and recreation and prime agricultural lands can be saved. Zoning is not only a good idea when considering hazardous waste facilities. It's a good idea in general.

Comprehensive Plan

Before a municipality is zoned, a plan must be developed. This is

known as the Comprehensive Plan. The Plan is a guide to the future growth and development of the community. It states basic policies. The Plan examines past growth and development of the community and how that has led to the present. In addition, it projects the future and how the community will chart its course to arrive at that future. The Plan serves as the basis for any land use provisions enacted by the municipality. In other words the municipality will rely on the Plan as a guide in making day-to-day decisions about the growth and development of the community. Therefore, the Plan must be carefully developed by using scientific studies, by clarifying goals and objectives and by involving the residents of the community. Although involving residents may seem unimportant and inconvenient, citizen participation is of utmost importance from the outset when developing the Plan. Without citizen involvement, the Plan may become ineffective because of continuous challenges by citizens. Therefore, it is of the utmost importance to involve citizens when developing the Plan in order to have their full understanding and support. For more information on the Comprehensive Plan see the Department of Community Affairs Planning Series Number 3, The Comprehensive Plan.

ZONING

Zoning is used to regulate the use of land by dividing the municipality into districts. The power to zone and to adopt zoning ordinances is granted to local governments by the Pennsylvania Municipalities Planning Code, Act 247 of 1968, as amended (MPC). The MPC requires that a zoning ordinance be designed to:

1. Promote, protect and facilitate one or more of the following: the public health, safety, morals, general welfare, coordinated and practical community development, proper density of populations, civil defense, disaster evacuation, airports and national defense facilities, the provisions of adequate light and air, police protection, vehicle parking and loading space, transportation, water, sewerage, schools, public grounds and other public requirements, as well as to
2. prevent one or more of the following: overcrowding of land, blight, danger and congestion in travel and transportation, loss of health, life or property from fire, flood, panic or other dangers, and to

3. preserve prime agricultural and farmland considering topography, soil type and classification and present use.

Zoning is based on the studies contained in the Comprehensive Plan. It is a method of implementing the Plan. Therefore, zoning should not be done unless a Plan has been adopted. The Plan is the reference document for the zoning ordinances and future zoning amendments.

Zoning cannot be used to prohibit or exclude a land use such as a hazardous waste treatment, storage or disposal facility (TSD) from a municipality. However, a hazardous waste TSD can be prohibited in certain districts as long as there are areas where there is no prohibition. A prohibition can be (a) an expressed prohibition (a hazardous waste TSD facility is prohibited within the boundaries of X municipality); (b) lack of expressed permission in any land use; or (c) where a TSD is permitted, the ordinance is so unreasonable or restrictive that the establishment of such a facility is discouraged. Any of these prohibitions can open the possibility of an attack on the validity of the ordinance by a prospective developer, with the likelihood that the municipality will lose the case. In General Battery Corp. v. Alsace Township, 29 Pa. Commonwealth 498 (1977) the court held that "a township may not exclude

industrial waste disposal facilities from the entire municipality," adding: "The possibility that such a facility may have detrimental effects does not justify such a total exclusion." In Greenwood Twp. v. KEFO, Inc., 416 A. 2d 583, 1980, application of the ordinance distance criteria to the actual land in the township revealed that only nine parcels in the township would satisfy the locational criteria. Moreover, the largest of these was twenty-five acres in size, although fifty acres was determined to be the minimally appropriate size for a landfill. The municipality failed to establish a substantial relationship between the distance requirements and protection of the public health, safety and welfare. In order to avoid difficulties, the governing body should consider engaging a professional planner and legal counsel familiar with zoning.

If a municipality has been zoned, in all probability hazardous waste TSD facilities were not considered at the time the ordinance was adopted. As stated before, a TSD facility cannot be excluded through lack of permission in any land use zone. In other words, a TSD facility not specifically permitted as a land use in some zone is not automatically barred from that municipality. Therefore, it will be necessary for municipalities to examine their ordinances and determine if a hazardous

waste TSD facility provision is warranted. This is particularly true of municipalities which will not be exempted under the State's Siting Criteria, which will be discussed in more detail in Chapter IV.

A treatment or storage facility might best be included under industrial land uses. Because of the hazardous nature of the facility, it can be treated as a special exception or conditional use discussed in further detail later in this chapter. A disposal facility such as a land-fill may best be suited in an agricultural zone because of the large amount of land involved and in order to isolate it from populated areas. It should be noted here that in the State's Siting Criteria, Phase I (Section 75.428) criterion "excludes the agricultural areas formed under the Agricultural Security Act and prohibits hazardous waste treatment or disposal sites on the highest classification of prime farmlands (Class I) when under use as farmlands." Again the disposal facility can be treated as a special exception or conditional use in that particular land use zone.

CONDITIONAL USES

AND SPECIAL EXCEPTIONS

Conditional uses and special exceptions add flexibility to zoning. While many land uses may seem logi-

cally placed in a particular land use zone, they may need additional control because of their nature. A hazardous waste TSD facility falls into this category. A TSD facility can be logically placed in an industrial zone or an agricultural zone. However, because of its hazardous nature and potential adverse impact upon the health, safety and welfare of the municipality, additional conditions should be placed upon it. As suggested in Chapter VIII, "Negotiating", the conditions which were negotiated by the municipality and the developer can be inserted as the conditions for granting a special exception or conditional use application approval. Remember that a condition to be legally binding must be stated in writing as an integral part of the approval for the application.

A special exception is an approval or permission granted to an applicant to use land in a district for a purpose other than that generally permitted outright in that district. The special exception is granted by the Zoning Hearing Board in accordance with the standards contained in the zoning ordinance. The Zoning Hearing Board must hold public hearings on the proposed land use application. The Zoning Hearing Board may require the Planning Commission to review all requests for special exceptions and make recommendations to the Zoning Hearing Board. In Section 913 of the Municipalities

Planning Code, as amended, the Board's functions are stated as to special exceptions: "In granting a special exception, the board may attach such reasonable conditions and safeguards, in addition to those expressed in the ordinance, as it may deem necessary to implement the purposes of this act and the zoning ordinance." Therefore, the zoning ordinance must have a sound purpose section tied to the Comprehensive Plan.

A conditional use is similar to a special exception, but the governing body rather than the zoning hearing board maintains jurisdiction. A hazardous waste TSD facility may be handled as a conditional use rather than a special exception because its establishment can have a direct effect upon everyone in the municipality. Unlike a special exception, the conditional use involves another body of the municipality.

The Planning Commission first hears the proposal of the developer. The Planning Commission can also hold public hearings to consider all arguments for and against the proposal. The Planning Commission then makes its recommendation to the governing body which makes the final decision. The governing body must also hold public hearings before making its final decision. In this way, the public has two opportunities in which to voice its concerns. Many land use

proposals which can have a tremendous impact on the municipality and affect everyone in the municipality are handled as conditional uses rather than special exceptions.

The governing body must keep in mind its limitations when making special exceptions and conditional uses. In Greene Twp. v. Kuhl, 379 A.2d 1383 (1977), the Commonwealth Court ruled that "A local municipality cannot set geological or engineering standards stricter than those established by DER for issuance of its permits. However, factors other than geological ones, such as those involving aesthetics, population density and accessibility, govern the selection of a landfill site, and these factors are the appropriate subjects of local land use planning." It should be noted that this ruling was handed down in 1977. Since then, the Department of Environmental Resources has adopted its Siting Criteria for TSD facilities. When the municipality is considering adopting zoning ordinances or revising existing ordinances, it should refer to the Siting Criteria.

PREEMPTION

As stated earlier in Greene Township, supra: "A local municipality cannot set geological or engineering standards stricter than those established by DER for issuance of its

permits." Therefore, in regard to geological or engineering standards, the Department's standards override those set by municipalities.

In addition, the Commonwealth has reserved the right to supersede local zoning ordinances through a Certificate of Public Necessity (CPN). The CPN will be discussed in more detail in Chapter VI. However, it should be noted here. In Section 105 of the Solid Waste Management Act, 1980 (Act 97) the Environmental Quality Board (EQB) has been given the power to issue such an override. Section 105 (h) states that: "Issuance of a certificate of public necessity under this section shall suspend and supersede any and all local laws which would preclude or prohibit the establishment of a hazardous waste treatment or disposal facility at said site, including zoning ordinances. The suspension and supersession is explicitly extended to any person to whom such certificates were issued for the purpose of hazardous waste treatment or disposal and to the successors and assigns of such person." It thus can be concluded that until a CPN is issued, zoning ordinances will maintain control.

CONCLUSION

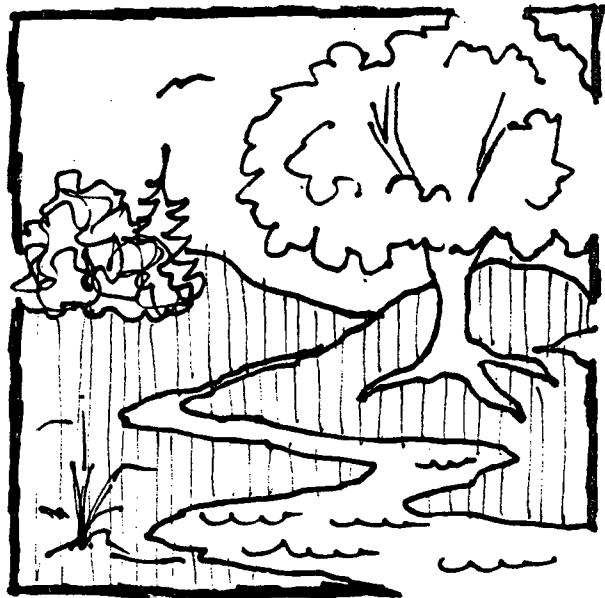
Zoning is not a cure-all for the land use problems of the municipality. It cannot change past development mistakes. However, it can prevent unwise development and development patterns from occurring in the future. By zoning, a municipality can maintain control over its growth and development, providing a better place for all residents to live, work and play through logical and orderly development. However, zoning is only as good as the municipality's Comprehensive Plan. If the Plan has not been carefully thought out and developed using well-formulated studies, the subsequent zoning will be ineffectual and may be found invalid when challenged in the courts.

Controlling uses of land is beneficial. However, if the Plan has not been closely followed and the integrity of the Plan has been changed by special zoning amendments, haphazard development occurs. One form of arbitrary rezoning known as "spot zoning" leaves the municipality open to challenges by prospective

developers and makes it difficult for a municipality to prove its case. A court will look more favorably on a municipality which has shown that it has indeed planned for its orderly growth and development and has followed the plan that was developed.

It should be remembered that the first step to zoning is the adoption of a well-developed, well-thought-out Comprehensive Plan. The Plan should be closely followed to show that zoning has taken place under careful consideration. It should also be kept in mind that involving citizens in the early development of the Plan will ensure that needs and concerns of the citizens will be addressed and that the Plan will serve everyone. Zoning is not a cure-all to solve all the problems of a municipality. It cannot be used to prohibit certain kinds of development. However, if properly done zoning can provide for orderly growth and development in the municipality.

IV. SITING CRITERIA



In 1980 the Pennsylvania General Assembly passed the Solid Waste Management Act (Act 97). This act gave the Department of Environmental Resources (DER) the authority to adopt regulations for hazardous waste treatment, storage and disposal (TSD) facilities. DER was required to develop, prepare and publish in the Pennsylvania Bulletin preliminary environmental, social and economic criteria and standards for siting hazardous waste treatment and disposal facilities. Storage facilities were not included.

The siting criteria were developed under the guidance and with the recommendations of the Solid Waste Advisory Committee. After four years

of development, the final criteria were published on September 21, 1985.

The siting criteria are divided into two phases. Phase I is the exclusionary phase. It identifies areas of the Commonwealth where hazardous waste facilities are prohibited. If a specific site does not meet the Phase I criteria, the permit application is automatically denied. Phase I also describes limited and specific exemptions from certain existing and proposed incineration and treatment facilities. Phase I criteria do not apply to existing facilities or to modifications within existing facilities.

The Phase II criteria are applied

after the prospective facility site passes the Phase I criteria. Phase II is a site-specific analysis.

The siting criteria should be of great interest to elected officials as the criteria will be used during the permitting process to determine where a hazardous waste facility may or may not be placed. The siting criteria will also be an integral part of the hazardous waste management plan and will be used during the permitting process and by the Environmental Quality Board (EQB) when it is considering issuing a Certificate of Public Necessity (CPN).

PHASE I

Phase I of the siting criteria contains the exclusionary criteria. They restrict the siting of new treatment and disposal facilities and the expansion of existing facilities into a new area. Phase I criteria do not apply to existing facilities or to modifications within the existing facility site. If a new facility does not meet the criteria for Phase I, DER will not issue a permit. Phase I criteria exclude landfills, land treatment and surface impoundments from siting in certain locations. These exclusions are:

- o "Locations within one-half mile of a well or spring used for a

community water supply.

- o "Locations within one-half mile of either side of a stream or impoundment for a distance of five stream miles upstream of a surface water intake for a community water supply.
- o "Locations within one-half mile of an off-site private or non-community public well or spring used as an active water supply. If the applicant provides and bears the cost of an alternative, permanent source of drinking water prior to the opening of the facility, then he may be excepted from this provision. Bottled water and water tanks do not qualify as alternate sources.
- o "A hazardous waste landfill, land treatment, and surface impoundment cannot be sited in a 100-year flood plain or larger area which has been inundated by the flood of record.
- o "Treatment and incineration facilities also cannot be sited in a 100-year flood plain or area that the flood of record has inundated unless the industrial use existed as of October 4, 1978 (effective date of the Flood Plain Management Act, 32 P.S. Sections 679.101 - 679.601).

- o "Treatment and disposal facilities cannot be sited in wetland areas.
- o "Surface impoundments, landfills, and land treatment facilities cannot be sited over active or inactive oil and gas wells or gas storage areas.
- o "Surface impoundments, landfills, and land treatment facilities cannot be sited over limestone or carbonate formations where the formations are greater than five feet thick and are present at the topmost geologic unit.
- o "Treatment and disposal facilities cannot be sited within national natural landmarks or historic sites unless the statute under which these areas have been made authorizes the operation of facilities there.
- o "Treatment and disposal facilities cannot be sited in state, county, or municipal parks, parks that are part of the national park system, state forests, the Allegheny National Forest, state game lands, Historical and Museum Commission property, national wildlife

refuges, fish hatcheries and national environmental centers. An exception is if the agency administering these lands has the authority to allow the operation of the facilities on those lands.

- o "Treatment and disposal facilities cannot be sited on agricultural areas established under the Agricultural Area Security Act (3 P.S. Sections 901 - 915) or Class I agricultural land.
- o "Treatment and disposal facilities cannot be sited in the watershed of exceptional value waters."³

The exclusionary criteria may not apply to a hazardous waste TSD facility even though the area surrounding the facility falls within the Phase I exclusionary criteria. For instance, a site that is surrounded by a national forest, but is not included in that forest area, is not excluded. It is the applicant's responsibility to prove that a particular site does not fall within the exclusionary criteria. If the applicant can demonstrate that the site is not excluded in the Phase I criteria and the site complies with all other regulations, then that facility can be permitted.

³ Criteria for Siting Hazardous Waste Treatment and Disposal Facilities. 25 PA Code Ch. 75. Pennsylvania Bulletin. Vol. 15, No. 38. pp. 3341 - 3342. Saturday, September 21, 1985. Harrisburg, Pennsylvania.

PHASE II

After a site has passed the Phase I criteria, the Phase II criteria are applied. Phase II criteria apply to all hazardous waste treatment and disposal facilities and modifications to those facilities.

Phase II criteria contain the cautionary criteria. These criteria are site specific and contain analyses of the environmental, social and economic impacts the facility will have. If a proposed site does not meet all the criteria in Phase II, then the applicant must submit additional information so that DER can determine the effect it would have upon the acceptability of the facility site. At this point DER will ask for information from municipalities and other interested persons concerning the potential effects failure to meet Phase II criteria would have. The burden is on the applicant to prove that placing a facility on this site would not have an adverse effect on the environment, on public health and safety, or on natural, scenic, historical, aesthetic, or economic values. Failing such assurances, proof must be made that these effects can be mitigated.

In Phase II, the applicant is required to determine if any public or private water supplies are down-gradient of the proposed site beyond

the one-half mile limit. At this time the applicant must provide hydrogeologic studies describing the groundwater flow pattern beneath the site. DER may decide that potential risk exists to the groundwater and place into the permit conditions which would either mitigate the risk or require an alternative source of drinking water. If DER determines that the facility may contaminate groundwater and that contamination cannot be mitigated, then DER can deny the permit.

The Phase II criteria include the following conditions:

- o "The applicant must determine whether a proposed surface impoundment, landfill, or land treatment facility is within the groundwater recharge area for public or private water supplies.
- o "The applicant must show information indicating whether the facility will have an effect on water supplies or water treatment plants.
- o "If the facility is within one mile of a fault, then the applicant must provide information in order that the DER can assess the compatibility of the proposed facility design with the faults in the area. Landfill,

land treatment, and surface impoundments can be sited one mile or more from a fault.

- o "A landfill, surface impoundment, and land treatment facility can be sited on an area with a bedrock depth to fifteen feet or more.
- o "Slopes of less than 15% are acceptable for siting landfills, surface impoundments, and land treatment facilities.
- o "If the site is next to or on a landslide-prone area, the applicant must provide information showing that the design measures protect the facility from potential landslides.
- o "If abandoned oil and gas wells and gas storage areas exist on the proposed facility site, the applicant must provide information to allow DER to assess the probability and degree of subsurface discharges to be expected on the site after the wells are plugged.
- o "If carbonate bedrock underlies the proposed site of a surface impoundment, landfill, or land treatment facility, the applicant must provide information to allow the DER to assess the prevalence of solution channels

and the potential for sinkholes at the site.

- o "Surface impoundments, landfills, or land treatment facilities cannot be located in areas of coarse unconsolidated deposits such as well-sorted valley fill deposits and heavily fractured bedrock. For any other type of facility which an applicant wishes to place in such an area, the applicant must provide information to allow DER to assess the facility site and to determine the environmental impact of these subsurface conditions.
- o "If a proposed treatment or disposal facility is within a five mile radius of an earthquake epicenter, the applicant must provide information on design measures which would withstand a potential seismic shock. DER will determine if the proposed design measures provide adequate protection from potential earthquake damage.
- o "A land treatment facility must be placed on soil with a pH of no less than 6.0.
- o "A surface impoundment, landfill, or treatment facility must be located so that the cation

exchange rate in the soil is 15 milliequivalents per 100 grams of soil or greater.

- o "The applicant must own the mineral rights of a proposed facility site. The area where the facility is to be placed cannot have been mined previously. This applies to all surface impoundment, landfill, and land treatment facilities.
- o "If an area where any proposed facility is to be sited has been previously mined (includes deep and surface mining), the applicant must provide information to allow DER to determine what subsidence risks there are and how the applicant proposes to stabilize the area. The applicant must provide assurance that any minerals providing support will not be mined.
- o "Treatment and disposal facilities can be sited in areas which are zoned industrial or which are indicated as industrial in officially adopted county or municipal comprehensive plans or land-use maps. If a proposed site is not so designated, the applicant must provide information to allow DER to assess if the proposed facility is compatible with zoning and land use controls. If no zoning exists, then the applicant must provide

information to allow DER to decide if the proposed facility is compatible with existing land use.

- o "Existing treatment and disposal facilities which are currently operating are considered to comply with land use criteria.
- o "Treatment and disposal facilities must be located within five miles travel distance of a limited access highway. If the applicant cannot meet this requirement, he must provide additional information showing the proximity of the proposed site to the limited access highways, the impact to the community of the transportation corridor, and the effect of the operation of the proposed facility. The applicant must provide a plan for highway improvements if necessary.
- o "The transportation corridor between the proposed facility and the access to limited access highways must have no more than five residential dwellings per road mile, and no schools, community parks, or hospitals. In addition, there cannot be more than four intersections per mile. If the applicant cannot meet these criteria then he must provide additional information to allow DER to assess the

effect this would have upon safety and traffic congestion.

- o "The applicant must provide information to allow DER to determine if adequate safety services are available. These include police, ambulance, fire protection, and other necessary safety services.
- o "Treatment and disposal facilities are acceptable if sited not less than one mile from an airport, school, community park, hospital, church, retail center, or nursing home.
- o "A treatment or disposal facility is acceptable if it does not adversely affect the economy of the host municipality and municipalities which are contiguous to the transportation corridor. The applicant must provide information to DER if a facility will result in net revenue loss to local jurisdictions to allow DER to assess the compensation which is needed to offset the actual net revenue loss.
- o "If a treatment or disposal facility will adversely affect the local economy, the applicant must provide information and analysis to allow DER to assess employment and future economic development generated as a

result of the location of the facility which may offset a decrease in the local economy.

- o "If a treatment or disposal facility will result in a net increase in cost to local government for monitoring the facility, the applicant must provide information to allow DER to assess the need for compensation for technical assistance which may offset these costs. The applicant must assess provisions for site access by local government.
- o "The applicant must provide information and analysis to allow DER to assess a change in market value of property within the local government caused by operation of the treatment or disposal facility and means by which the proposed facility may offset the change.
- o "Section 75.450 defines criteria which allow the DER to evaluate the potential impact a proposed treatment or disposal facility would have on the natural, scenic, historic, and aesthetic values of the environment. If the proposed facility will have an impact, then DER will consult with the applicant to determine ways in which these potential adverse effects can be mitigated. If DER finds that

*significant environmental harm will be incurred then DER will evaluate the social and economic benefits to determine if these outweigh the risks."*⁴

ZONING AND THE SITING CRITERIA

It may appear to elected officials that DER has taken control of siting of a hazardous waste facility within a municipality. Elected officials may give up, feeling that their authority has been taken away from them and that they will not have any control over the situation. This is not entirely true. While the criteria are very specific concerning siting of a hazardous waste facility, the burden of proof that a facility can be sited in a particular location is upon the applicant. Therefore, any information elected officials can show to contradict the applicant's information is valuable. In addition, elected officials can protect the interests of their municipality by assessing the municipality before a developer proposes to build a hazardous waste TSD facility in the municipality.

First, elected officials can conduct an environmental survey of the municipality. This should include

soil types, flood-prone areas, prevailing wind directions, mined areas, gas and oil well areas, wetlands, carbonate bedrock areas, faults (areas that may be prone to earthquakes), location of aquifers, areas prone to landslides and special farm-lands. This type of survey can reveal if the municipality is a reasonable choice for a hazardous waste facility. It can also be valuable information for other kinds of development in the future.

Second, elected officials should look at present land use patterns. If development has occurred haphazardly and if a hazardous waste facility can be determined to be compatible with the current land use, there is a possibility that a hazardous waste facility could be placed in that location.

Third, elected officials should look at the transportation corridors leading to the municipality. This includes proximity of limited access highways to the municipality, size of roads (two, four, or six lane roads), weight limits on municipality roads, whether or not the roads are paved and structures along the transportation corridor (number of houses, schools, hospitals, shopping centers,

⁴ Criteria for Siting Hazardous Waste Treatment and Disposal Facilities.
25 PA Code Ch. 75. Pennsylvania Bulletin. Vol. 15, No. 38. pp. 3342 - 3345.
Saturday, September 21, 1985. Harrisburg, PA.

nursing homes, parks). Other items which should be included in the survey are intersections and traffic signals, the number of bridges and their weight limits.

Fourth, elected officials should look at the existing services provided by the municipality. Police and fire departments, rescue squad ambulances, road maintenance, sewer and trash services and any other facilities needed to respond to a possible chemical accident should all be considered by elected officials to determine the ability of the municipality to meet the needs of a hazardous waste facility.

Fifth, elected officials should survey the tax base of the municipality which includes residential, industrial, commercial and other sources of tax revenue. Elected officials should also know the average assessed value of property in the area.

A HAZARDOUS WASTE DEVELOPER'S SITING CRITERIA

When a potential hazardous waste facility developer is considering a site, he will look at several things. He may consider a number of sites before making a final decision.

First, he will have to consider the State Siting Criteria since he will have to comply with those regulations. Therefore, he will eliminate areas which have been excluded in the Siting Criteria.

Once he has identified possible areas for siting a facility, he will look at the proximity of the proposed facility to major highways and to generators of hazardous wastes. He will not want to build a facility hundreds of miles from waste generators as it will add to the cost of transporting the wastes and will pose additional risks for transportation accidents.

A third consideration a facility developer might look at is the presence or absence of zoning in the municipality. Without zoning it is much easier for a developer to choose a site within the municipality. He will not have to seek a zoning change or a special exception or a conditional use permit. In addition, it may not be necessary for a developer to seek a Certificate of Public Necessity to override any ordinance which may prohibit a facility. See Chapter III on Zoning.

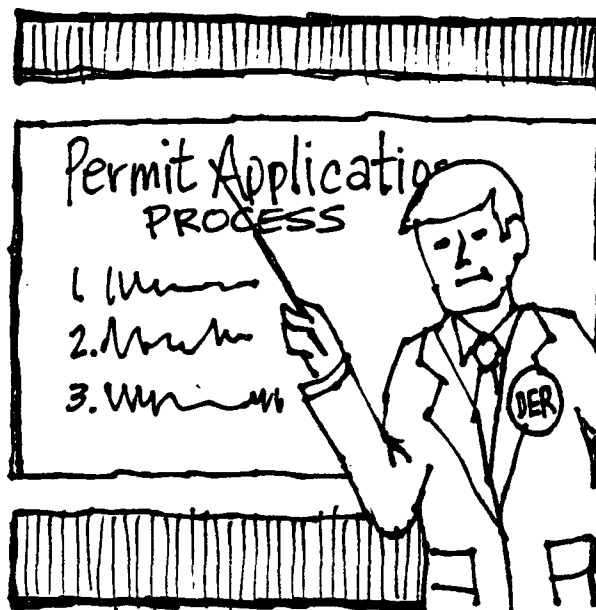
A fourth consideration is the availability of land in the municipality which meets the state's and developer's criteria.

CONCLUSION

The State Siting Criteria have been developed to protect the natural resources and sensitive areas of the Commonwealth as well as the health and safety of the citizens of Pennsylvania. Certain areas and resources which are particularly sensitive have been excluded from hazardous waste facilities. Other areas have not been excluded, however certain restrictions have been developed to ensure that these areas are protected.

Although these criteria have been developed, elected officials should consider measures in which they can protect their municipalities. One such way is to zone a municipality to keep separate residential, industrial, commercial and recreational areas, protect landmarks, natural areas, drinking water sources and any other land uses which elected officials and residents feel should be protected. In this way, many different land uses will be provided for while sensitive areas will be protected and areas of natural and historical significance preserved.

V. THE PERMITTING PROCESS



INTRODUCTION

An operator of a hazardous waste treatment, storage or disposal (TSD) facility must first apply to the Department of Environmental Resources (DER) for a permit to accept hazardous wastes and to operate the facility. The owner of a hazardous wastes transporting firm must obtain a license to establish a terminal and to transport hazardous wastes in Pennsylvania.

This chapter will outline the procedures the facility owner and the transporter must go through to obtain a permit or license, the appropriate times for a county or local official or other interested parties to

comment on the permit or license applications the county and local official should consider and how to effectively make comments so that the affected municipalities' concerns are addressed.

PERMITTING PROCESS --

THE FACILITY OWNER

Before any person or municipality may own or operate a hazardous waste treatment, storage or disposal facility, the person or municipality must first have a permit [Solid Waste Management Act of 1980. P.L. 380, No. 97, Section 401(a)]. In order to obtain a permit, the potential opera-

tor must submit an application to DER. For existing facilities, a Part A application is required and a Part B may be required. For new facilities an application sheet and a Part B application are required. A hazardous waste facility permit is valid for not more than ten years. The DER may elect to issue a permit that is valid for less than ten years.

PART A

Part A contains general information about the facility and about the facility operator. The Environmental Protection Agency identification number, the official name and location of the facility, the standard industrial classification (SIC) codes, the names of the operator and of the owner and the current federal and state permits are included in Part A. This part also contains the name of a contact person and mailing address of the facility owner or operator. Topographic maps showing the boundaries of the facility, locations of intake and discharge structures, underground injection wells, springs, surface water and wells within one quarter of a mile of the facility are also included in Part A. Section XII of Part A describes the processes used to treat, store or dispose of hazardous waste. Section XIII describes the hazardous wastes and the quantity of hazardous wastes that are to be treated, stored, or

disposed of at the facility. Section XIV includes drawings of the property boundaries, areas occupied by storage, treatment or disposal operations that are used during interim status, areas of past and future treatment, storage and disposal activities, the dimensions of the property boundaries and all treatment, storage or disposal areas. Photographs of existing structures and existing areas for treatment, storage or disposal are included in Section XV of Part A.

PART B

Part B of the permit application, which contains more specific information about the facility and its operation, is submitted in two phases. A report on the treatment, storage or disposal operations of the facility must be included in Part B. This report contains information on the operation plans, daily operation, procedures, expected waste types, sources and volume and on the unit processes of the treatment, storage or disposal facility. Maps and drawings showing the site location, site plan and general arrangement plans and elevations are also included in Part B, as well as design specifications, an environmental assessment (Module 9) and compliance history of the site owner and operator (Module 10).

Operators of hazardous waste TSD facilities must submit topographic maps with Part B, showing within a quarter of a mile of the facility property line:

- o "Previously mined areas.
- o "Location of public and private water supplies, wells, springs, streams, swamps or other bodies of water.
- o "One-hundred-year flood plains.
- o "Location of gas and oil wells.
- o "Location of high-tension power lines and pipeline rights-of-way.
- o "Location of geologic and hydrologic features.
- o "Traffic flow patterns.
- o "Surrounding land uses."

Drawings and specifications must be submitted with Part B showing:

- o "Management of surface water.
- o "Erosion control.
- o "Revegetation procedures.
- o "Site preparation.

- o "Monitoring and measuring devices.
- o "Location and limits of construction.
- o "Location, description, and purpose of existing easements.
- o "Definition of all title, deed, or usage restrictions relative to the site.
- o "Location of gas, oil, and other wells and all on-site utilities.
- o "Location of on-site public and private water supplies.
- o "Cross sections showing horizontal location.
- o "Drainage grades.
- o "Cross sections of access roads and all-weather roads (identifying construction material, slopes, grades, and distances).
- o "Surface drainage diversion ditches, capacities, and calculations for ditch volume.

- o "Process and instrumentation diagrams for unit processes."⁵

In addition, reports detailing the following are also required with Part B of the permit application:

- o "Operations, methods, practices, and all unit processes.
- o "Waste types, volumes, and sources.
- o "All plans required by the regulations that affect the proposed facility and its operation.
- o "Quality control methods, procedures, and tests used during construction.
- o "Specifications detailing the design requirements of the quality of materials, workmanship of fabrication of the project, type, size, strength, operating characteristics, and ratings of all major mechanical and electrical equipment.
- o "As-built specifications."⁶

DER may require additional information before issuing or denying a permit.

Certain types of treatment, storage, or disposal facilities must submit additional information relative to that facility. Operators of landfills, surface impoundments and land treatment facilities must submit additional information. This information includes topographic maps showing:

- o "On-site or off-site borrow areas.
- o "Location of underground and surface mines. This must also include maps showing the extent of the deep mine workings.

Other information which is required to be submitted in Part B is as follows:

- o "Soils, geologic, and ground-water report.
- o "Environmental assessment report.
- o "Description of general operations, methods, and practices.
- o "Compaction of solid waste.
- o "Application of daily cover material.

⁵ Pennsylvania Solid Waste Regulations, 25 PA Code Ch. 75, Subchapter D. Pennsylvania Bulletin. pp. 74.205 - 75.209. Harrisburg, Pennsylvania.

⁶ Ibid.

- o "Elevation and grades of final cover.
- o "Schedule of fillings.
- o "Location and limits of areas previously filled.
- o "Interface details between previously filled areas and areas to be filled.
- o "Depth of soil available at the site for suitable cover material.
- o "Construction schedule.
- o "Groundwater contour map.
- o "Monitoring and measuring devices.
- o "Revegetation procedures to be used.
- o "Other information detailing the operation of the facility as required by DER.
- o "Any other information required by DER."⁷

THE APPLICATION PROCESS AND COMMENTING

When an individual decides to build a hazardous waste facility, he must notify DER of his intent and arrange a pre-application conference with the Department. At this conference DER familiarizes the applicant with the application process, the forms, procedures and the regulations with which the applicant must comply.

When the applicant submits the application, DER publishes a notice of intent in the Pennsylvania Bulletin. DER must also directly notify the county and the municipality where the proposed facility is to be sited that a hazardous waste facility permit application has been submitted. The host county and municipality have sixty days in which to comment on the application. DER cannot act before these sixty days have elapsed.

The applicant publishes a notice of application in a display ad in the local daily newspaper that a hazardous waste facility permit application has been filed with DER. Within ten

⁷ Ibid.

days after the applicant submits the application he must send written notice to the host municipality, county, adjacent landowners and other municipalities within a one-mile radius of the proposed facility.

After DER has received the application and has reviewed it, DER notifies the applicant if the application is complete or not. DER can request additional information.

When DER begins its technical review, it must issue a press release notifying elected officials and the public that it has begun the technical review and that comments may be submitted during this period which is at least sixty days. At this time elected officials, residents or any interested party can ask DER to schedule a public meeting. DER must release notification of the public meeting at least fourteen days before the scheduled date.

After DER has completed the technical review, it either approves or denies the permit. DER issues a press release to local daily newspapers and local radio stations and places a display ad in the local newspapers. DER also sends copies of the public notice advertisement to county and host municipality officials. At least thirty days before the public hearing DER issues its intent to approve or deny the permit

application and publishes this intent in the Pennsylvania Bulletin. The public hearing is held in or near the host municipality. If, during the hearing, it is found that significant issues have been raised, DER can extend the public review and comment period until all of these issues have been resolved to DER's satisfaction. After the final permit or denial has been prepared, a copy is sent to county and host municipality officials. DER also prepares a fact sheet and draft permit or permit denial and sends both to EPA.

If the permit is to be issued, DER prepares a summary of the permit and sends copies to the host county and host municipality officials. DER also publishes its action on the permit in the Pennsylvania Bulletin and issues a press release on its final decision and the location of copies of the final permit.

DER can override any comments sent to it on a permit application. When the Department does this, it must send an override letter to the commentor stating the reasons why those comments were overridden. This decision can be appealed to the Environmental Quality Board (EQB). However, in order to do so, the person, agency or local municipality must have standing. To have standing one must be affected by the facility.

During the permitting process, the applicant need not conduct any public participation program or interact in any way with the host municipality other than publishing an advertisement in the local newspaper that the applicant has filed a permit application. However, if the applicant must eventually apply for a Certificate of Public Necessity (CPN), then he must show that he has conducted a "meaningful public participation program." This will be discussed further in Chapter VI. **Elected officials must remember that an applicant may decide not to apply for a CPN if there is no zoning or other local laws in the municipality which preclude or prohibit a hazardous waste facility.** See Chapter III on Zoning. Two large diagrams showing the permit application process and the public participation process associated with the permit application process accompany the handbook.

COMMENTING

Elected officials have several opportunities to comment on a permit application but may choose not to do so because of a perception of lack of expertise. This should not deter elected officials or anyone else from making comments on a permit application and from expressing their concerns. A hazardous waste facility will have an impact upon the municipality and therefore everyone who

will be affected by it should participate in the permitting process at every opportunity.

An elected official may comment on anything that is contained in the permit application and submit any information to DER that the applicant or DER may be unaware of. This information can include past mining activities that were not mapped or recorded. It can also include information on private drinking water wells or gas or oil wells in the area of which the applicant or DER may not be aware. Any information which an elected official possesses that might affect the issuance of a permit should be made known to DER.

When commenting, an elected official should avoid abstract statements such as "We don't want a hazardous waste facility here because it will lower revenues." Other statements that should be avoided: "A hazardous waste facility would cause bad health effects." "The people in my community don't like it and don't want it." Statements such as these cannot be acted upon by DER. DER's decision to issue or deny a permit can only be based upon environmental factors that can be documented. DER cannot deny a permit because a hazardous waste facility is not wanted in the municipality. Comments should be based on facts that are substantive.

Comments which are valuable and can be acted upon are those which address the technical aspects of the facility, the compliance history of the operator, the environmental impact and similar issues. It may be a good idea for elected officials to obtain the services of a professional engineer, geologist or chemist for assistance in commenting on the technical aspects of the permit application.

Elected officials should consider commenting on the following:

- o Location of monitoring wells, leachate collection systems.
- o Design specifications which may not mitigate potential contamination or which would not detect contamination.
- o Knowledge of aquifers or past mining in the area, and of oil and gas wells.
- o Compliance history of the applicant. This includes compliance to regulations in other states as well as in Pennsylvania.
- o Conflict with zoning or other ordinances in the municipality.
- o Adequacy of an emergency response plan.

- o Stack heights or other engineering features of incinerators.

- o Access routes to the facility.

Elected officials can also recommend that certain items be incorporated into the permit. DER will consider those recommendations and may include them as conditions for permitting.

As stated earlier, DER may override any comment, but must state in writing the reasons for the override. An override can be appealed to the Environmental Quality Board (EQB).

LICENSING PROCESS -- THE TRANSPORTER

A transporter of hazardous waste is required to obtain a license from the Department of Environmental Resources and is required to have an identification number. To obtain an identification number the transporter submits a notification form to transport hazardous waste. When DER receives the form it assigns the transporter a number. DER issues licenses only to transporters who have a terminal within Pennsylvania. A transporter who carries hazardous waste through the Commonwealth and does not have a terminal within Pennsylvania need not notify DER or obtain a license from DER.

Once the identification number is acquired, the transporter submits a license application. The transporter must also deposit a collateral bond with DER. The collateral bond is for at least \$10,000. The bond is to ensure compliance with the regulations and with the conditions of the license. The bond continues for the duration of the license, for any renewal of the license and for one year after the license expires. A license is valid for two years and may be renewed. In addition, the transporter must submit a certificate, issued by a Pennsylvania insurance carrier, showing he has public liability insurance.

When a transporter applies for a license to establish a terminal for vehicles carrying hazardous waste, DER publishes a notice in the Pennsylvania Bulletin. DER also directly notifies the host municipality. In addition, DER notifies PennDOT, the Pennsylvania Public Utilities Commission (PUC), U. S. Department of Transportation (U.S. DOT) and appropriate agencies in states where the firm does business. Elected officials as well as citizens can and should comment on a transporter license application.

A transporter may hold wastes at his terminal for no longer than seventy-two hours. If he keeps wastes at the terminal for more than three days, he must file a Prepared-

ness, Prevention, and Contingency (PPC) Plan with DER. The PPC Plan for transporters is similar to that filed by operators of hazardous waste facilities. In addition, a transporter who stores or treats wastes at his facility must comply with regulations regarding storage and treatment facilities (Sections 75.264 and 75.265). He must submit a Part B application and provide information as required by DER. A transporter who wishes to blend or mix hazardous wastes of different U.S. DOT shipping descriptions must comply with regulations regarding generators of hazardous wastes (Section 75.262).

When hazardous wastes are in transport, the transporter must comply with certain regulations. A transporter must carry with the shipment a manifest that has been completed by the generator. In addition, a transporter cannot accept shipments of hazardous waste that are not securely packed or properly marked.

The transporter must develop and file a contingency plan with DER. In the event an accident resulting in a spill or discharge should occur during shipment, the transporter must immediately notify the affected municipality, DER and the National Response Center. The transporter must clean up any spill occurring during transport.

COMMENTING

When a transporter submits an application for a license to operate a hazardous waste transporting service, DER directly notifies the municipality in which the terminal will be sited. In addition, DER notifies PennDOT, PUC, the U.S. DOT and appropriate agencies in other states where the transporter has terminals. This is done to determine if the transporter has complied with safety and environmental laws. If the transporter has outstanding violations, then DER cannot issue a permit. DER has no jurisdiction over safety violations which fall within the jurisdiction of PennDOT. DER has jurisdiction over environmental regulations and tracks the movement of hazardous waste to ensure that the wastes are not being disposed of improperly. If the transporter has a past record of illegal dumping, or non-compliance with environmental regulations in Pennsylvania or other states, the permit application can be rejected.

DER has no jurisdiction over the placement of the terminal. This falls under the jurisdiction of the municipality. The municipality may regulate this type of activity by enacting zoning ordinances or other laws.

Comments that are important and appropriate for officials to make are those on the environmental compliance history of the transporter. If the

elected official has knowledge of non-compliance by a transporter, then he should inform DER. Non-compliance comments can include improper disposal of hazardous waste, improper storage or storing hazardous waste without a permit and improper record-keeping.

CONCLUSION

Because of the nature of a hazardous waste facility and because of the impact upon the municipality that the siting of such a facility can have, elected officials must become involved in the permitting process. During this process elected officials have the opportunity to express concerns about siting the facility within the municipality. Elected officials should take advantage of these opportunities and express their opinions and concerns.

When commenting, elected officials should not make abstract or general statements that are difficult to address. Elected officials should make concrete, precise comments on the engineering of the facility, the hydrology of the area, the site location, the emergency response plan, the compliance history of the applicant and should add any other information that can assist DER in its permitting decision. These kinds of comments can be useful and meaningful.

Again, the importance of zoning in a municipality has been shown. Without zoning, a municipality has no control over the siting of a terminal for vehicles carrying hazardous wastes or that of a hazardous waste

TSD facility. A municipality without zoning should seriously consider enacting zoning ordinances, not only for hazardous waste TSD facilities, but for all types of land development.

CERTIFICATE OF PUBLIC NECESSITY

INTRODUCTION

Elected officials should be particularly interested in the Certificate of Public Necessity (CPN) since it will "suspend and supersede any and all local laws, including zoning ordinances, which would preclude or prohibit the establishment of a hazardous waste treatment, storage or disposal facility."⁸ This means that any zoning ordinances or other laws a municipality enacts to prohibit a hazardous waste treatment, storage or disposal (TSD) facility outright or to make it extremely difficult to site a hazardous waste TSD can be overridden so that a hazardous waste facility can be built.

The Environmental Quality Board (EQB), not the Department of Environmental Resources, has the power to issue CPN's. Before a CPN is issued, the Environmental Quality Board must consider:

1. "The extent to which the facility is in conformance with the Pennsylvania Hazardous Waste Facilities Plan;
2. "The impact of the proposed facility on adjacent populated areas and areas through which wastes are transported to such facility;

⁸ Solid Waste Management Act, Article I, Section 105 (h). p. 9. 1980, Harrisburg, Pennsylvania.

3. "The impact on the borough, township, town or city in which the facility is to be located in terms of health, safety, cost and consistency with local planning; and
4. "The extent to which the proposed facility has been the subject of a public participation program in which citizens have had a meaningful opportunity to participate in evaluation of alternate sites or technologies, development of siting criteria, socio-economic assessment, and all other phases of the site selection process."⁹

In addition, the EQB will use the Siting Criteria (see Chapter IV) when considering issuance of a Certificate of Public Necessity.

Before applying for a CPN, a developer must have acquired the necessary permits from the Department of Environmental Resources or the U.S. Environmental Protection Agency (EPA). In addition, all impact assessments and public participation programs must have been implemented by the developer prior to applying for the CPN.

When the Environmental Quality Board is considering an application for a CPN, it must provide an opportunity for the public to comment on the application and must consider those comments when making a decision. In addition, the EQB must hold hearings in order that the Board can make a decision. "During all deliberations of the board a representative of the county and township, borough or municipality affected will be invited to participate."¹⁰ This provides for an outreach to affected municipalities so that they will have every opportunity to participate in this very important process. This is an opportunity that should be taken advantage of by local governing bodies. This process, the commenting period and public hearings are all means by which elected officials can make their concerns known to the EQB. All of these should be used to the fullest extent.

This chapter will discuss the Hazardous Waste Facilities Plan and the public participation program that have been developed so far and how they will be a part of the CPN process.

⁹ Ibid. Section 105 (f) (3). p. 9.

¹⁰ Ibid. Section 105 (i). p. 10.

Hazardous Waste Facilities Plan

The Hazardous Waste Facilities Plan was prepared by the Department of Environmental Resources as required by the Solid Waste Management Act of 1980 (Act 97). Section 507 (a) states that "The Department of Environmental Resources shall have the power and authority to develop, prepare and modify the Pennsylvania Hazardous Waste Facilities Plan."¹¹

The Plan must include criteria and standards for siting hazardous waste treatment and disposal facilities, an inventory of the sources of hazardous waste, and current hazardous waste practices in Pennsylvania, a determination of future hazardous waste facility needs, a strategy for implementing methods, incentives and technologies for source reduction, detoxification, reuse and recovery of hazardous wastes, and identifying necessary waste, disposal and treatment facilities and their locations.

When the Environmental Quality Board is considering an application for a CPN, it must consider the need for the particular type of technology that is being proposed. Chapter 7 of the Hazardous Waste Facilities Plan will play a major role in the EQB's decision-making process as it projects the kinds of technologies that

will be required to manage hazardous waste in Pennsylvania and the capacity that is needed.

The findings of the report are that Pennsylvania needs new hazardous waste treatment and storage facilities; that Pennsylvania needs plants for incineration (70,000 metric tons per year), wet air oxidation (45,000 metric tons per year), aqueous treatment (300,000 metric tons per year), and thermal destruction (40,000 metric tons per year); that resource recovery plants are preferred over treatment and disposal plants. The report also finds that two land disposal facilities with stabilization are needed with one located in the western half of the state and one in the eastern half. Their combined capacity should be 200,000 metric tons per year. In addition, on-site facilities may also be needed.

Many companies may elect to build or expand their on-site TSD facilities since they can more closely monitor how their hazardous wastes are handled. On-site facilities may also reduce the amount of wastes that are transported over the highways. This may lead to an increase of treatment, storage, and disposal (TSD) facilities since a commercial site handles wastes of many companies, but an on-site facility handles the wastes of only that com-

¹¹ Ibid. Article V, Section 507 (a). p. 25.

pany. It is important that elected officials participate not only in the event that a commercial TSD facility is sited within their municipality, but also when a generator proposes to build a site at the place where hazardous wastes are generated.

The Public Participation Program

When reviewing the application for a CPN, the Environmental Quality Board must also consider the "extent to which the proposed facility has been the subject of a public participation program in which citizens have had a meaningful opportunity to participate in evaluation of alternate sites or technologies..."¹² As of this writing a "meaningful public participation program" has not been defined. The Department of Environmental Resources with the guidance and recommendations of the Solid Waste Advisory Committee (SWAC) is defining that phrase. A list of members of SWAC is provided in the appendices.

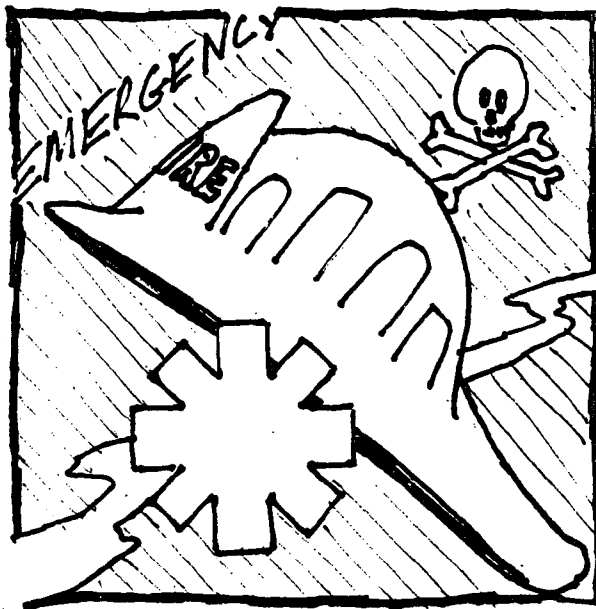
Conclusion

There are many stages to the issuance of a Certificate of Public Necessity. The EQB will consider each hazardous waste TSD facility on a case-by-case basis to determine if all the criteria have been met by the developer. If all the established criteria have been satisfied and the facility is determined to be in compliance with the Hazardous Waste Facilities Plan and the Siting Criteria, then a CPN can be issued.

Elected officials and citizens have opportunities to participate in the siting process and to make their concerns and opinions heard. Elected officials will be invited by the EQB to participate during all deliberations of the EQB. Elected officials should take advantage of every opportunity to participate in the siting process. In this way, elected officials can ensure that the concerns and needs of their municipality are met while fulfilling their responsibility as elected officials to protect the health, safety and welfare of the residents of the municipality.

¹² Ibid. Article I, Section 105 (f) (3) (iv). p. 9.

VI. EMERGENCY MANAGEMENT AND RESPONSE



INTRODUCTION

The purpose of this chapter is to provide local elected officials with information to develop an emergency response plan for their municipalities. Although this chapter focuses on emergencies involving hazardous waste, it should be noted that this information applies to the chemical industry in general, hazardous waste being a part of the chemical industry. Under the Emergency Services Code, the governing body must develop an emergency plan and have an emergency coordinator for all types of emergencies whether they are natural or man-made. Because the city, township, borough, town or home-rule

municipality is the first responder to an emergency, it is imperative that a viable plan be developed, an emergency coordinator is appointed and proper training and equipment is provided for emergency services personnel. Without a plan, a municipality may find itself open to lawsuits should something go wrong during an emergency response. With a plan, the municipality can protect itself from lawsuits by demonstrating that an emergency plan had been implemented during the emergency. Ultimately, it is the responsibility of every local government (as well as the county in a coordinating role) to develop an emergency response plan. It is hoped that the information

provided in this chapter will encourage elected officials to study the emergency management plans or lack of plans in their municipalities and to develop or improve those plans.

LEGAL AUTHORITY

In 1978 the Pennsylvania General Assembly passed the Emergency Management Services Code, Title 35, P. L. 707, No. 230, Part V. This code established the Pennsylvania Emergency Management Agency and authorized and directed each municipality to establish a local emergency management organization (coordinator) and emergency plan. Under this code, each municipality is responsible for emergency planning, response and recovery within its boundaries. The code mandates that each municipality shall:

1. "Prepare, maintain and keep current a disaster emergency management plan for the prevention and minimization of injury and damage caused by disaster, prompt and effective response to disaster and disaster emergency relief and recovery in consonance with the Pennsylvania Emergency Management Plan.
2. "Establish, equip and staff an emergency operations center,

consolidated with warning and communication systems to support government operations in emergencies and provide other essential facilities and equipment for agencies and activities assigned emergency functions.

3. "Provide individual and organizational training programs to insure prompt efficient and effective disaster emergency services.
4. "Organize, prepare and coordinate all locally available manpower, materials, supplies, equipment, facilities and services necessary for disaster emergency readiness, response and recovery.
5. "Adopt and implement precautionary measures to mitigate the anticipated effects of disaster.
6. "Execute and enforce such rules and orders as the agency shall adopt and promulgate under the authority of this part.
7. "Cooperate and coordinate with any public and private agency or entity in achieving any purpose of this part.
8. "Have available for inspection at its emergency operations

center all emergency management plans, rules and orders of the Governor and the agency.

9. "Provide prompt and accurate information regarding local disaster emergencies to appropriate Commonwealth and local officials and agencies and the general public."¹³

The local government is also responsible for the direction of disaster emergency management services within its boundaries. If two or more municipalities are involved, then the county assumes responsibility during an emergency. The Pennsylvania Emergency Management Agency (PEMA) assumes responsibility when two or more counties are involved. If all resources and forces at the local level are committed, assistance from the county or state is provided. A municipality may also call in assistance from other units of government if it determines that additional assistance is needed.

Many municipalities have found that their budgets will not allow for an expansion of emergency equipment or that their operations are too small to be efficient. For many municipalities, entering into mutual aid agreements have enabled them to expand their scale of operations

while reducing unit costs and increasing efficiency. Subchapter A Section 7504 (c) of the Emergency Management Services Code states that, "County and local coordinators of emergency management shall develop mutual aid agreements with adjacent political subdivisions for reciprocal emergency assistance..." Through mutual aid agreements, a municipality can pool its resources with other municipalities and increase its effectiveness when responding to an emergency. These agreements have enabled small municipalities to have access to specialized services and have provided for back-up and standby resources in the event of heavy demand during an emergency. Agreements have enhanced performance capabilities and have provided flexibility for altering arrangements as conditions change. However, mutual aid agreements are not without disadvantages.

Mutual aid agreements have raised legal and liability questions. What legal responsibilities has a municipality incurred by entering into an agreement? Which municipality is liable in the event of an error during an emergency response? Are all municipalities entered into the agreement liable? Agreements also change operations procedures and require closer coordination among the

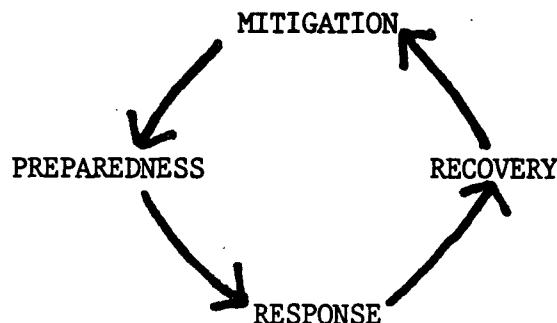
¹³ Emergency Management Services Code. P.L. 707. No. 230. Part V. Chapter 75. Subchapter A. Section 7503. 1978

municipalities involved. Delays in calling for assistance, lack of back-up staff for units at the scene and over-response can occur. In addition, questions of who has the authority to make decisions during an emergency response and to request additional assistance have been raised.

COMPREHENSIVE EMERGENCY MANAGEMENT

A disaster does not suddenly happen. A hazard exists, but something must occur in order for it to turn into a disaster. A river which calmly flows through a town may

become a raging torrent because of a bursting dam, causing a disaster. Likewise, a hazardous waste facility may operate safely most of the time, but because of human error or equipment failure may release toxic chemicals into the air, water and soil causing a disaster. Trucks routinely carrying hazardous chemicals to a facility without mishap may develop a leak or become involved in an accident causing a disaster. Being prepared for such a disaster is only one phase of emergency management. There are four phases of Comprehensive Emergency Management -- mitigation, preparedness, response and recovery.



MITIGATION: Mitigation is taking steps to eliminate or reduce the risk of a disaster occurring. This can be done by routing a truck carrying hazardous materials around densely populated areas or over less hilly or narrow roads. A hazardous waste TSD facility can be placed away from populated areas or closer to interstate highways to avoid additional transport of the wastes.

PREPAREDNESS: Preparedness is planning how to effectively respond to a disaster. It entails developing an emergency plan, training emergency personnel, and identifying and acquiring resources to respond to a disaster. Without proper preparation it is difficult to respond effectively and to reduce the risk of greater loss of life and property.

RESPONSE: Response is the actual carrying out of the emergency plan by providing assistance to the victims of the disaster and reducing the likelihood of secondary damage.

RECOVERY: Recovery is the period in which a normal or near normal state returns. Short-term recovery may include returning victims to their homes, providing them with temporary water supply and initial clean-up of a spill. Long-term recovery may include providing a new permanent water supply, removing contaminated soil or relocating residents to new permanent housing. During recovery, ways to mitigate future disaster should be explored. The emergency plan should also be reviewed during this period to determine how well it worked and to identify any weaknesses in the plan and ways to strengthen it.

DEVELOPING A PLAN

Because emergencies are similar, a generic plan can be written for all types of emergencies. The generic plan or municipal plan contains a section preceding the basic plan, the basic plan and annexes. The section preceding the basic plan gives the plan its status as an authoritative document.

It contains the record of changes, annual review and table of contents. The basic plan contains the references the plan is based on; purpose, hazards in the municipality, goals and objectives; description of emergency management organizations; operations; responsibilities of various agencies involved in an emergency and their tasks; direction and control, administration and definitions. This section outlines jurisdictional responsibilities including broad policies, plans and procedures.

The annexes are the functional areas of the plan. They are specific as to what each function is, and how and when it is carried out.

Representatives from the community should be involved during the development of the plan. These representatives should include police, firemen, elected officials, agencies involved as support groups during an emergency (i.e. Red Cross, Salvation Army) and interested residents in the community. It is the responsibility of the local Emergency Management Coordinator (EMC) to identify who the representatives should be, to assemble the group and to lead the discussion. After everyone has had input, the EMC writes the plan.

An emergency plan should be useful and flexible. It should not be so cumbersome as to make it difficult to implement. Not all variables can be foreseen in the plan since during an

emergency variables such as wind direction and weather can change. However, certain considerations should be addressed. The following section will discuss the part of the plan that will deal with emergencies posed by hazardous waste facilities and transporting hazardous wastes.

Municipality Information

Before writing the hazardous wastes emergency plan, basic information should be gathered about the municipality. A very useful tool is a map of the municipality showing major highways, secondary roads, and access roads to the facility. It is a good idea to plot the route or routes that trucks carrying hazardous wastes to the plant will routinely travel. In addition, the map should show the location of the facility as well as the areas of the municipality which are vulnerable to spills or releases occurring at the facility or along the truck routes. A streams map showing all bodies of water within and flowing through the municipality is also a useful tool. In addition, the drinking water intakes along these water bodies should be plotted on the map. This information will be useful if a spill should occur and enter a stream, river or reservoir used as a source of drinking water. The names and phone numbers of the contact persons at the water authorities should be included

in the plan. Identify residents of the municipality who are using wells as a source of drinking water. Determine if these wells are vulnerable to a spill occurring at the facility or to a spill caused by a transportation-related accident.

Vapors from volatile organic chemicals have been known to spread throughout sewer systems and enter homes. Therefore, information on the municipality's sewer system should also be gathered. Is the sewer system vulnerable to a chemical spill? If so, how can this be prevented?

All shelters, medical facilities and emergency management stations should also be plotted on the map. This information can be used if residents must be evacuated. It can also be used to keep track of buildings that might be vulnerable during an emergency should wind direction change.

Facility Information

Identify the hazards associated with the facility and with transporting chemicals to the facility. What technology will be used at the facility--incineration, neutralization, solidification or disposal? If the facility is using disposal, what kind of disposal method will be practiced--landfill, open pit, landfarming, deep well injection? What kinds

of wastes will be treated? What is the layout of the facility? Obtain blueprints of the facility for this information. In the event a spill or other release occurs at the plant, emergency personnel can identify the section in which the release occurred, know where the exits are, determine where to seal off the plant if necessary, etc. Know who the operator of the facility is and who is in charge during an emergency. Work with the facility's emergency response team and include them when developing the plan. Conducting joint drills can be useful to the municipality's emergency response team as well as to the facility's response team.

Warning System

A system warning residents of a toxic release is essential in any emergency plan. Some chemicals are so toxic that only a small amount may seriously injure or kill thousands. A disaster such as this occurred in Bhopal, India, in December, 1984. There may be only minutes available to evacuate residents from the area to safety. There are many types of warning systems a municipality may use. It is up to the EMC to determine which will work best for the municipality. Many municipalities use a siren to notify residents of an impending disaster. These work well to notify large numbers of people in

a short amount of time. However, residents must recognize the siren so that it isn't confused with a fire siren or other signal. In addition, the hearing-impaired will not know the siren has sounded. Those people must be notified another way. The residents must also know in which direction to evacuate so that they do not head into the path of a toxic cloud.

Another method of notification is using a truck with a bullhorn. This too can notify many residents in a short amount of time. The residents can also be told in which direction to evacuate and to what shelter they should go. Again, the hearing-impaired must be notified by other means as they will not hear the bullhorn.

One county in western Pennsylvania has developed a warning system whereby phones are rung simultaneously in the homes of those who are affected by a spill or release or other emergency. The residents are then told to listen to a predetermined radio station for further details. This can work well. However, if immediate evacuation is necessary, valuable time can be lost.

A type of block watch can be developed as another method of notifying residents of an emergency. This system involves identifying residents living within proximity of

the facility who are interested in being a part of an emergency alert team. Three or four people from each block would be on a team. They would work closely with the emergency management organization to develop the program. They would be notified to evacuate and, in turn, would organize residents on their block to evacuate and lead the evacuation to the designated shelter. This can provide for a more orderly evacuation and ensure that those who are handicapped or elderly would be assisted in evacuating.

Any of these methods or a combination of methods can be used to develop an emergency evacuation program. It is the decision of the governing body as to which plan would best suit the needs of the municipality.

Emergency Management Coordinator

Every municipality must have an emergency management coordinator (EMC) in accordance with the Emergency Services Code. The coordinator works for and is responsible to the governing body. The governing body sets the direction, programs and policies for emergency management in the municipality. The emergency management organization is not a substitute for or an addition to the police, fire, ambulance, Red Cross or other community emergency functions.

Its purpose is to coordinate all of these services and manage them in the event of an emergency in the municipality. For this reason, a police chief, fire chief or person performing some other type of emergency response should not be appointed emergency management coordinator. During an emergency, the police or fire chief will be involved in responding to the emergency and will not be able to coordinate all the activities of the various departments responding to that emergency. It is therefore wise to appoint someone whose sole job will be to coordinate emergency response activities during an emergency.

The coordinator is recommended by the executive officer or governing body and is appointed by the governor. The coordinator is responsible for:

1. "Coordinating with other local emergency service agencies.
2. "Attending and successfully completing Phase I training within one year after appointment.
3. "Attending and successfully completing Phase II training within three years after appointment.

4. "Attending other training and workshop sessions scheduled by the director of PEMA.
5. "Preparing and maintaining a disaster emergency management plan.
6. "Establishing, equipping, and staffing an emergency operations center (EOC).
7. "Organizing and coordinating all locally available manpower, materials, supplies, equipment, and services necessary for disaster emergency readiness, response, and recovery.
8. "Recommending preventive measures to reduce disaster effects.
9. "Having available current rules and regulations issued by PEMA and the governor.
10. "Providing prompt information regarding local disasters to appropriate Commonwealth and local officials or agencies and the general public.
11. "Developing mutual aid agreements with other municipalities."¹⁴

Emergency Services Code, Chapter 75, Subchapter A, Section 7502 (a) states the responsibilities of the local coordinator of emergency management: "Each local organization of emergency management shall have a coordinator who shall be responsible for the planning, administration, and operation of the local organization subject to the direction and control of the executive officer or governing body."

Emergency Services

Personnel Training

Elected officials should provide funds for training of all emergency personnel in the municipality. Only with adequate training will emergency personnel be able to respond effectively and safely to a disaster. Funding for proper equipment should also be included in the budget. If the facility has an emergency response team, the municipality's emergency personnel should participate in joint training sessions. All of these can be negotiated before the facility is built.

Training should include instruction in the proper use of equipment, proper procedure in responding to a chemical spill and identification of the Department of Transportation placards which are required to be

¹⁴ Pennsylvania Emergency Management Agency. The Local Coordinator's Handbook. Pennsylvania: Pennsylvania Emergency Management Agency, (1984), pp. 2-3.

affixed to trucks carrying hazardous materials.

Emergency personnel should be trained to do fundamental air tests and be able to identify incompatible chemicals. Emergency personnel should also be trained to identify the toxicity and health hazards of certain chemicals. Many training programs are conducted throughout the Commonwealth. One such program is held at the Fire Training Academy in Lewistown, Pennsylvania. The academy provides training in responding to hazardous materials spills as well as training in identifying hazardous materials. The training is free to all municipal fire departments. Because responding to chemical emergencies is a specialized and dangerous field, all first responders should be thoroughly trained and aware of what is happening at the scene of a chemical spill.

Equipment

The municipality should take an inventory of its equipment to identify what equipment is needed to respond to a hazardous waste spill. Needed equipment should be acquired. This can be included in the negotiating agreement discussed in Chapter VIII.

Establishing Rapport with Facility Operator

Establishing rapport with the operator must be done during the siting process. This can be helpful when gathering information about the facility and about the wastes the facility will be handling; when coordinating emergency response programs, training emergency personnel, and acquiring equipment; and when requesting other support from the facility operator. It is easier to work from a cooperative position, rather than an adversarial one. By working from a cooperative position, it will be much easier to obtain the information that is needed and to acquire the tangible items, such as equipment needed to respond to an emergency.

Making Emergency Management Plan Public

The emergency management plan should be available for public review. The plan should be available in the municipal building, as well as the library, or other public place where the residents of the municipality will have easy access to it. In this way, residents can become familiar with the plan and learn what to do during an emergency. In addi-

tion, residents have the opportunity to make comments and suggestions. This ensures that everyone's concerns are addressed and makes for a more effective, workable plan.

Testing the Plan

The plan should be tested to ensure its effectiveness and to ensure that all personnel are properly trained and know what their part is during an emergency. By testing the plan, the EMC can identify weaknesses in the plan, determine if it is workable and make changes. Through testing, the EMC can develop a plan that is workable and satisfies the needs of the municipality.

THE FACILITY OWNER'S RESPONSIBILITIES

Regulations promulgated under Act 97 [P.L. 380, No. 97, 1980, Section 75.264, (g) (h) (i)] define the responsibilities of owners of hazardous waste TSD facilities in emergency preparedness and prevention at the facility.

The owner must take precautions to prevent ignitable or explosive wastes from coming into contact with flames or substances which could cause the wastes to catch fire and/or explode.

The facility must be designed, constructed, operated and maintained in such a way as to minimize the possibility of fire, explosion or release of hazardous waste. In addition, the facility must be equipped with an alarm system, telephone communications to request emergency response teams outside the facility, equipment to extinguish fires and to contain spills, and adequate water supplies. If the owner can demonstrate that the equipment listed above is not necessary to handle the hazards of the wastes, then this equipment need not be present at the facility.

Owners of a facility need only attempt to familiarize local firemen, police and emergency response teams with the layout of the facility and with the properties and hazards of the wastes handled at the facility. Should state or local authorities decline to enter into an arrangement with the facility owner to become familiar with the facility, the owner will document this in the operating record. Local authorities would have lost an opportunity to learn about the facility and its hazards. This can make it much more difficult when responding to an emergency at the facility and make it difficult to ensure the health, safety and welfare of the residents of the municipality. In addition, the municipal liability could be much greater if a facility

operator's cooperative advances were rebuffed.

The owner must also comply with other regulations. A Preparedness, Prevention and Contingency (PPC) Plan must be developed. The PPC must list the names, addresses and phone numbers of facility employees who are designated as emergency coordinators. The PPC must also describe the arrangements the owner has made with local emergency response teams, as well as hospitals and state emergency response teams for responding to spills and releases at the facility. A copy of the PPC must be submitted to the county emergency management agency, local fire departments, hospitals, police departments and emergency response teams.

TRANSPORTER'S RESPONSIBILITIES

A transporter of hazardous waste must also comply with regulations promulgated under Act 97. The transporter must develop a contingency plan in the event a spill occurs. He must immediately notify the municipality in which the spill occurs. He is also responsible for clean-up of the hazardous waste and he must ensure that the wastes are no longer

a hazard to the health and safety of the public or to the environment.

The transporter is also responsible for training personnel and proper safety when transporting hazardous waste. Certain equipment must be available in the event a discharge occurs either during loading or unloading of the waste. This equipment includes protective clothing and first aid supplies.

CONCLUSION

Although hazardous waste facility owners and transporters of hazardous waste must comply with emergency contingency regulations, it is the ultimate responsibility of the elected officials to develop an emergency management plan for their municipality. The governing body is mandated to develop an emergency management plan and to have an emergency management coordinator for the municipality. The governing body should not rely upon the facility owner to develop the plan for the municipality. Instead, the elected official should work with the facility owner to develop a plan which is workable and protects the health, safety and welfare of the residents of the municipality.

VII. NEGOTIATING



INTRODUCTION

As the shortage of hazardous waste treatment, storage, and disposal (TSD) facilities grows more critical, elected officials are increasingly faced with the possibility of a facility being located in their municipality. When a developer approaches the municipality to build a hazardous waste facility, the general feeling may be that there is no choice but to accept or to reject the proposal. However, this is not the only choice. The governing body as well as the residents can negotiate with a developer.

Many governing bodies have not had negotiating experience. Some do not even know they can negotiate when faced with this issue. If they are aware of the possibility of negotiating, they may be unfamiliar with its mechanisms. What a governing body negotiates for is unique to the needs of that particular municipality. This chapter is designed to give elected officials ideas on what they can negotiate, how to go about negotiating and what they should be aware of when negotiating.

WHY NEGOTIATE?

The primary reasons for elected officials to negotiate is to protect the interests of the residents of their community. While a hazardous waste TSD facility benefits society as a whole, the costs and impact to the host community may outweigh this benefit.

The elected officials' immediate concern is to protect the health and welfare of residents. They also want to ensure that the property values do not decline and that the water supplies are not contaminated. They may have other concerns unique to that community. Through negotiations, elected officials can bring these concerns to the attention of the facility developer. Negotiation provides elected officials and residents with the opportunity to have meaningful input into the siting process.

Because of an override clause in Pennsylvania's law, it may well be in the best interests of a municipality to negotiate with a developer. This override (Certificate of Public Necessity, CPN) is discussed in more detail in Chapter V. It allows the developer to build a facility after he has received all the proper state permits and has established a need for the facility. It supersedes all local laws and zoning ordinances.

However, the developer must demonstrate that he has conducted a "meaningful public participation program" when he requests a CPN. It is not mandatory that a developer conduct the public participation program. He can risk that he will not have to request a CPN and therefore not conduct the public participation program. This is especially true if the municipality has no zoning ordinance or other local laws.

By negotiating in good faith with the developer, the governing body may also avoid a lawsuit being filed against the municipality by the developer. This can save the municipality money. Should the municipality lose, the residents would have to accept the facility without their needs or concerns being addressed.

Although elected officials may negotiate with a developer, the developer may be dissatisfied with the results and try to obtain a CPN and/or file a lawsuit against the municipality.

WHEN SHOULD NEGOTIATIONS BEGIN?

Informal negotiations can begin before the application is made to the Department of Environmental Resources (DER). Formal negotiations should begin at the time the governing body of the host municipality receives the

application. At this time, elected officials can discuss with the developer special exceptions to the zoning ordinance (discussed in more detail in Chapter III). If applicable, a hearing can be set to establish criteria for such an exception. These criteria can become the negotiating items.

WHAT IS NEGOTIABLE?

Many municipalities will be tempted to make a "shopping list" of demands in return for allowing the siting of a hazardous waste facility. Many of these items may appear unrealistic or unfulfillable to a developer. At this point negotiations could break down. Therefore, elected officials must objectively assess the situation and determine the impact the facility will have on the community and how this impact can be mitigated and/or compensated.

Mitigation lessens the adverse impact of the facility on the municipality. It is more cost effective to prevent an adverse effect than to fix it after it has happened. Mitigation has a positive effect in that it demonstrates the developer's commitment to the municipality, thereby establishing his credibility. It also minimizes the problem of estimating the cost of impacts and negotiating compensation.

When elected officials feel that the facility is not environmentally or structurally sound or is inappropriate (aesthetically or socially) for their municipality, they can negotiate for items which would mitigate these adverse impacts. Negotiable items include additional land purchases by the developer to increase the buffer zone between the facility and nearby residences. The governing body can also negotiate for widening and upgrading of access roads to the facility and for hours of operation. Again these factors are unique to the community involved. It is imperative that the governing body assess the situation as objectively as possible to understand how the facility would operate and its potential impacts on the community. The governing body should conduct public meetings and form an advisory committee of residents of the municipality to ensure that legitimate concerns of the residents are addressed.

Since many impacts of a facility cannot be mitigated, compensation can be negotiated. Compensation is reimbursement of the costs of adverse impacts to individuals or to the municipality as a whole. Compensation addresses unavoidable, intangible, and uncertain effects. Unavoidable effects such as deterioration of roads due to increased

traffic are measureable. Intangible effects, such as the quality of life or community image, are difficult to measure. Uncertain effects are difficult to predict. They include impacts such as a trucking accident or damage to the facility due to a tornado, flood or other natural phenomenon.

Compensation can take the form of monetary payments, in-kind replacement of affected resources or services, contingency funds, insurance or land value guarantees and payments.

Monetary payments are made directly to an affected individual, group or municipality. The elected official may find himself in a difficult position if he is negotiating actual monetary payments. He can be perceived as being bought off. However, he can negotiate to establish a program that would enable individuals or groups who would be affected by the facility to negotiate on their own behalf. Elected officials can negotiate for such things as additional fire equipment because of the new facility. A correlation can be drawn - the burden is acquisition of additional fire equipment and the payment is compensation for this burden. Payments can be either one-time or continuing. They may be earmarked for a fund to be used for a specific activity such as emergency response

or road improvement. Because the future value of monetary payments can decrease, one-time and continuing payments must be calculated differently. Another consideration when negotiating monetary payments is the change in the magnitude of effects in the future. In order to address these changes, a strategy for reviewing and revising a negotiated agreement may be inserted into the basic agreement. This would require periodic review and renegotiation of monetary payments.

In-kind replacement of services or resources are attractive alternatives which can be used to offset municipal costs. The developer may find it easier to make a monetary payment because he is unable to provide the service or the resource. Some in-kind payments are one-time while others are continuing commitments. In-kind services or resources can include accepting and treating hazardous wastes generated by the host municipality and households in the municipality, building a park for the community, training local emergency response teams, repaving access roads and restoring property.

Contingency funds and insurance are compensatory items. These compensate for adverse occurrences which are difficult to predict and unlikely to occur. Contingency funds can guarantee that an operator would

comply with performance requirements and protect against unexpected events. Performance requirements include operation, maintenance and closure of the facility. These can be calculated in advance. Unexpected events such as fires, spills and accidents cannot be predicted and therefore are difficult to calculate in advance. Federal and State laws and regulations have required facilities to obtain assurances of financial payment to provide for unforeseen occurrences.

In 1982 the U.S. Environmental Protection Agency (EPA) issued regulations under the Resource Conservation and Recovery Act (RCRA), requiring owners/operators of hazardous waste facilities to have liability insurance or show financial strength. Because of the current crisis in obtaining liability coverage, owners/operators can self-insure if they meet the requirements of the Pennsylvania regulations for self-insurers. Owners/operators are also required to demonstrate the ability to pay for sudden accidental occurrences in the amount of \$1 million per occurrence or \$2 million annual total, exclusive of legal defense costs. Owners and operators of landfills, surface impoundments and land treatment facilities are subject to additional coverages for nonsudden occurrences and accidents.

In addition to liability insurance, owners/operators must also satisfy requirements for financial assurances of closure and post-closure care. These can include trust funds, surety bonds, letters of credit and closure and post-closure insurance.

Subchapter E of Pennsylvania's hazardous waste regulations (title 25, chapter 75) established financial requirements for owners/operators. The owner/operator of a hazardous waste facility is required to file a bond with DER. Liability is for the duration of the operation of the facility and up to 10 years after final closure. The Secretary of DER determines the amount of the bond based upon the total estimated cost to the Commonwealth to complete final closure of the facility and post-closure care. All facilities are bonded for at least \$10,000.

Although federal and state laws require certain financial assurances, the governing may negotiate additional financial assurances. These can include those listed above or others such as:

- o Hazardous waste fund - funds the operation or maintenance of a facility, clean-up of accidents, or payment of personal damage claims.*

- o *Emergency response fund - funds clean-up of accidents and pays damages in unexpected hazardous waste events.*

These funds are financed in several ways. They can be state-supported, developer-supported or both. The drawback to developer supported funds is that a mechanism is needed to determine when the situation warrants expenditures from the fund and what those expenditures should be. The developer and the governing body can negotiate whenever an event occurs or the decision can be made by a court, by the State or by a mediator. However, valuable response time would be lost in this process.

Individuals as well as the governing body may want to negotiate for compensation of decreased property value. While property values may decrease with the establishment of a facility, the amount of decrease will be difficult to calculate. Two kinds of property value can be negotiated. The developer can purchase the property at fair market value from the owner or can make a payment which reflects the decrease in value to the property owner. In the case of the latter, an agreement should be made as to when this payment would be made, i.e. when the property is sold, after the facility is in operation, but within a time limit or when approval for operation of the facili-

ty is made. Only individuals who owned property before the facility was built should be compensated. Those buying the property later will have already been compensated through the lower market price. However, future property values will depend on adverse occurrences in the future. The new owner may want to discuss this with the operator.

The governing body will be interested in reduction of property values, since this will probably mean lower tax revenues from those properties. An agreement can be negotiated whereby the developer makes continuing as-needed payments to offset the loss in tax revenue.

For more information on calculating compensatory payments and loss of property value, the governing body should refer to the EPA book on Using Compensation and Incentives when Siting Hazardous Waste Management Facilities (See Appendix).

The governing body can also negotiate for a team to monitor the facility. This team should be comprised of individuals from the community. Ideally, they should be persons who are respected by the community and represent varying degrees of expertise and interests, such as engineers, chemists, environmentalists, attorneys, adjacent landowners, or residents of the community. The team can monitor the

THE FUNDAMENTALS OF NEGOTIATION

PREPARATION

- o Identify and define issues.
- o Define objectives.
- o Develop position and proposals for each issue.
- o Gather factual information required to support your positions.
- o Select negotiating team; assign roles; choose spokesperson.
- o Develop groundrules for negotiating team -- signals, when to caucus, etc.
- o Assign priorities to objectives; decide which cannot be compromised and which can serve as tradeoffs.
- o Consider positions and strategies likely to be advanced by other parties; decide how you should respond.
- o Decide how and when to communicate with your constituency during negotiations.

NEGOTIATION

- o Spokesperson presents position and handles all communications with other parties at the negotiating table.
- o Caucus when situation requires discussion among members of negotiating team. Don't hold such discussions at the table.
- o Keep careful written notes on proceedings.
- o Observe "do's" and "don't's" of negotiation.

From: New England Regional Commission. Negotiating to Protect Your Interests. A Handbook on Siting Acceptable Hazardous Waste Facilities in New England. Boston, MA. 1980.

facility on a regular basis and issue a report to the community on its inspections. If it finds any problems with the facility, these should be reported to the DER. A monitoring team can help to allay the fears of residents in the community by reducing suspicions that the operator, local government or the regulatory agency are not being open about the operations of the plant. It can also establish goodwill between the community and the operator.

After the team has been formed, a spokesperson who will represent the team at the negotiation sessions should be chosen or appointed by the governing body. The team then should identify and define the issues and their objectives. It should develop positions and proposals on each of these issues for approval by the governing body.

HOW TO NEGOTIATE

Many elected officials will be hesitant or refuse to be the negotiator. An elected official should not be expected to be the only negotiator. He is at a disadvantage since he cannot possibly represent all the interests of the governing body and the community. The governing body should be the negotiator through an elected official or through a hired professional. The negotiator should

be supported by a broad-based advisory committee that reports to the governing body which instructs the negotiator. The advisory committee should include property owners in the community as well as adjacent communities, environmentalists, emergency response teams, and local officials from the municipalities affected by the facility.

The team should conduct a research program. The team can be divided into committees, with each committee assigned a specific topic to research. For example, one committee can gather information on the company's compliance history, another can gather information on the technology which will be used and another can gather information on environmental impacts (See Appendix on gathering information). After the information has been gathered, the committees discuss their findings.

A position on each issue should then be developed as well as alternative positions. The initial position should be the most ideal outcome for the municipality, i.e. construction of access roads to the facility which can handle the increased traffic and weight. The fallback position would be an acceptable proposal, i.e. major upgrading of existing roads to handle the increase in traffic and weight. The last proposal would be the absolute minimum

DO'S OF NEGOTIATIONS

PRIOR TO NEGOTIATIONS

Agree to negotiate only with representatives of legitimate stakeholders.
Prepare thoroughly.
Aim for accommodation and compromise rather than "win" or "wipe out".

NEGOTIATIONS

Be calm and cool.
Be personable; use names; be respectful.
Be confident in yourself and in the process.
Be flexible.
Be reasonable.
Listen carefully.
Keep meeting focused on the issues.
Sell your ideas persistently.
Phrase questions for a positive response.
Study alternatives and new information.
Caucus when necessary, but don't keep the other side waiting too long.
Avoid intimidation.
Respect confidentiality.
Express appreciation of time and effort expended by others.
Close on a positive note.

DONT'S OF NEGOTIATIONS

PRIOR TO NEGOTIATIONS

Don't underestimate other parties.
Don't overestimate yourself, your team, the justification of case or strategies.
Don't wait to prepare.
Don't talk loosely about your plans or attitudes toward other parties.

NEGOTIATIONS

Don't argue publicly among yourselves; save it for the caucus.
Don't lose your temper.
Don't waste people's time.
Don't list priorities of the other side.
Don't escalate demands or present surprises.
Don't oversell.
Don't react too unfavorably to your own mistakes; don't be defensive; don't blame; don't apologize.
Don't rush the other side.
Don't be pressured; if you have doubts, delay.
Don't be afraid to let issue stay on table.
Don't keep worrying about the end result.
Don't end meeting on negative note.
Do not ever make promises you cannot keep.
Do not ever lie.
Do not ever assume.

From: New England Regional Commission. Negotiating to Protect Your Interests. A Handbook on Siting Acceptable Hazardous Waste Facilities in New England. Boston, MA. 1980.

that is acceptable, i.e. upgrading of access roads. This is somewhat less than the fallback proposal. All positions should be reasonable. Reasonableness of the positions of the other side should also be considered. The bottomline proposal should be the final proposal. The other side's reactions to the proposals should be anticipated and a response prepared.

There are three considerations when negotiating. First, the setting of the negotiation. By conducting the negotiations in a place familiar to the local official, the speed of the negotiations can be controlled. Also, the negotiations should be held at a round or rectangular table rather than a lecture type setting. This places everyone at an equal level and eliminates the "power" perception.

Second, when negotiations appear to be breaking down or reach an impasse, a mediator may be called in to resolve the problems. The mediator must be acceptable to all sides and have a neutral position. He should know something about the issues. He should know how to negotiate and should understand the technical aspects of the issue as well as the regulatory, legal, and political aspects.

Last, the help of technical expertise should be enlisted. At some point in the negotiations, something could occur which the spokesperson did not anticipate or know about. He may have to make a decision as to whether to accept or reject the proposal or to make an alternative proposal. With technical backup these issues can be addressed and alternative proposals made.

After the negotiations are completed, the terms which the governing body and the developer have agreed upon can become the criteria for a special exception.

Remember, a municipality cannot relax or change its zoning ordinances or its sub-division ordinances to accommodate a hazardous waste facility or to exclude a hazardous waste facility. However, it can make provisions as special exceptions, allowing a developer to build the facility on a particular site provided he operates at certain hours or does not transport hazardous waste on certain roads or at certain hours. Items such as these can be negotiated and can become "special exceptions". This will be discussed in further detail in Chapter III, Community Planning and Zoning.

USING A MEDIATOR

WHY WOULD A MEDIATOR BE NEEDED

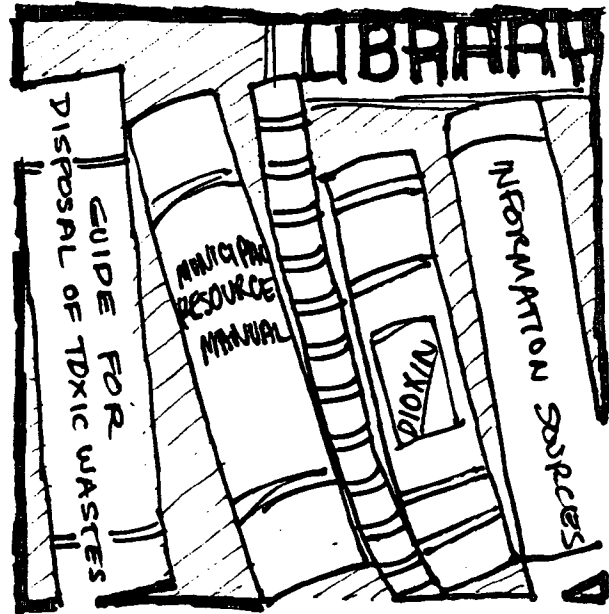
1. Parties are unable to overcome inflexibility of their positions by themselves.
2. So many issues are open to discussion that parties find negotiations unmanageable.
3. Parties need a mediator to explore and narrow the differences between them.
4. To furnish the parties with a realistic look at their demands and the possibility of obtaining them.
5. To discourage the "special pleading" demands of a few individuals within a bargaining group.
6. To give the parties some idea of how their positions look to an impartial person.
7. If the leadership of any party does not feel free to have private meetings with another, the mediator can serve as a conduit through which positions privately expressed may be communicated in a neutral and non-committal manner.

WHAT IS THE MEDIATOR'S ROLE

1. To act as a catalyst for negotiations.
2. To translate positions and proposals into terms that can be understood by all parties.
3. To help parties present their positions in a manner and sequence that contribute to productive negotiations.
4. To open discussion in areas not previously considered, or inadequately analyzed.
5. To help parties assign priorities to issues and goals.
6. To get each party to consider seriously the other parties' perspectives, concerns, and goals.
7. To help parties narrow the gap between their positions.
8. To maintain a productive pace for the negotiations.
9. To exert pressure to keep negotiations moving toward a settlement.

From: New England Regional Commission. Negotiating to Protect Your Interests. A Handbook on Siting Acceptable Hazardous Waste Facilities in New England. Boston, MA. 1980.

VIII. COLLECTING AND DISSEMINATING INFORMATION



INTRODUCTION

Elected officials should be well informed when facing a situation such as the siting of a hazardous waste facility within the municipality. They must collect as much information as possible about the developer (applicant), the site, the type of wastes that will be handled at the facility and the type of facility that is proposed (i.e., disposal, treatment or incinerator). Elected officials need this information so they can make informed comments on the permit application and decisions which might have far-reaching effects. Collecting this information

will be time-consuming and will require the assistance of many people. Considering the longterm effects such a facility could have upon the municipality, the amount of time and effort invested in the beginning will pay off in the end.

Elected officials should not be hesitant to ask residents in the municipality to take part in this research. They should call public meetings to alert residents of a proposed site and to keep them informed. They should invite residents to participate in the siting process and to work with them. Some residents may already have begun their

own research. By working together much time, money and effort can be saved.

This chapter will discuss the kinds of information elected officials should be collecting, where to get that information and how to make the information available to the residents of the municipality. These are only suggestions to get the researchers started. As the researchers conduct their investigations, they may find other methods that work better for them. They should adopt methods which best suit their needs.

COLLECTING INFORMATION

As stated above, elected officials should enlist the assistance of as many people as possible to help collect the information. These people should include residents of the community as well as the elected officials and members of the planning commission, zoning hearing board, emergency response coordinators and any other boards, commissions or committees already in existence. If possible, individuals with technical training or knowledge should be encouraged to participate. These individuals can include those with expertise in engineering, geology, hydrology, environmental science, emergency management, soils and other disciplines. A committee or task

force should be formed from this group to conduct the research and other investigations.

After the committee is formed, each individual should be assigned a specific task to perform. These tasks can include such things as reviewing specific segments of the permit application, contacting out-of-state agencies and officials, gathering maps, charts, graphs, contacting federal agencies and officials, etc. Municipalities that have had experience in the permitting process for a hazardous waste facility should be contacted for information. The committee should meet regularly to discuss the information that is obtained and to determine if additional information is needed. If the elected officials should decide to negotiate with the developer, this information will be extremely important.

WHAT INFORMATION

SHOULD BE COLLECTED

Information about the developer, the facility itself, the wastes and the site should be collected as soon as it is learned that the municipality may be the host site. A good starting point is the permit application itself. The Department of Environmental Resources is required to send a copy of the permit application to the host municipality and

county. It is a good idea to enlist the assistance of an engineer on the task force to review the permit application and any technical information. If one is not available in the municipality, elected officials may want to hire an engineer to assist in reviewing this information.

After reviewing the permit application, the task force can begin to collect additional information that the group feels is lacking in the application or information to answer questions that may have been raised during the review. The table below lists some questions about the facility and its owners.

- o Who are the owners of the facility?
- o Is the facility owned by individuals or by a corporation?
- o Will the owners also operate the facility?
- o If not, who will operate the facility?
- o Is the facility a division of a larger corporation?
- o If so, what is the name of that corporation?
- o Who is the president? Who is on the board of directors?
- o Who are the major stockholders?
- o Who will manage the facility (name)?
- o Who is in charge at the facility? Who is second in charge?
- o Who is the emergency coordinator? Who is the backup emergency coordinator?
- o Where is the corporate headquarters?
- o Do the owners have any other hazardous waste facilities?
- o If so, where are they located?
- o What is the owners' compliance history in operating the facilities?
- o What is the owners' experience in handling hazardous waste?
- o What are the owners' assets?
- o Do the owners have liability insurance? If not, can they get insurance? If not, how do they propose to insure the facility?
- o How will emergencies, i.e., spills, explosions, releases be handled?
- o What safety measures will be used to mitigate any spills or releases?
- o How will the owners notify the municipality of an emergency?
- o What is the evacuation plan?

Information about the facility and about the site should also be collected. While much of this information is in the permit application, the task force should collect additional information. Some of this information may already be known to members of the group (i.e., mining

practices in the area, previous uses of the site that may not have been recorded, etc.). Additional research should be done to get as much information as possible. The table below lists some questions about the proposed site.

- o *Where is the proposed site?*
- o *What kinds of land uses surround the site, i.e., farm, industrial, commercial, residential?*
- o *How large will the site be?*
- o *How much of that acreage will the facility occupy?*
- o *How much will be buffer?*
- o *What was the previous use of the site, i.e., farm, industrial, woodland, mining, etc.?*
- o *Has any mining occurred on or near the site?*
- o *If so, is the site stable?*
- o *Are any community or private wells on or near the site?*
- o *Are there any aquifers on or near the site?*
- o *What is the topography of the site location, i.e., flat, hilly, mountainous, etc.?*
- o *What is the geology of the site?*
- o *What is the prevailing wind direction?*
- o *What is the average precipitation?*
- o *Is the municipality's drinking water supply in danger of being contaminated?*
- o *How will the wastes be transported to the site, i.e., truck, rail, water?*
- o *Along what routes will the wastes be transported?*
- o *Will the wastes be transported through sensitive areas of the municipality?*
- o *What is the expected life of the facility?*
- o *What are the known health risks of the wastes?*

The table below lists some questions about operation of the facility.

- o What kind of facility is proposed, i.e., disposal (includes landfill and surface impoundments), treatment or incinerator?
- o Will the facility be part of an industrial park?
- o Will treated or burned wastes be disposed on the site or transported to another location?
- o What kinds of wastes will be handled?
- o From where will the wastes be transported? What industries will the facility be serving?
- o What is the projected volume of wastes that will be handled at the facility daily?
- o What is the projected volume of traffic?
- o What are the proposed hours and days of operation of the facility?
- o Can noise and odor problems be expected? How will these be controlled?
- o Will wastes be stored at the site? How long?
- o What is the storage capacity?
- o Has the proposed technology been used before or is it a new, innovative technology?
- o If this technology has been used in the past, is it effective? Would another technology be more appropriate?

Questions about the municipality are listed in the table below.

- o What effect will the facility have on the municipality?
- o Will there be a decrease in revenue?
- o How will the facility affect the municipality's liability insurance?
- o What costs will the municipality incur?
 - fire protection
 - police protection
 - road maintenance

WHERE TO GET THE INFORMATION

As already stated, much of the information that local officials should have will be contained in the permit application. However, local officials should conduct their own investigations to obtain information which may have been omitted in the permit application or information which would clarify information in the permit application.

The permit application will be sent to the host municipality. Others who are interested in obtaining a copy of the permit application can obtain it from their regional Department of Environmental Resources office. A list of the regional offices along with the addresses and telephone numbers is located in the appendices. To get additional information, elected officials will have to make inquiries to other Pennsylvania state agencies, federal agencies and out-of-state agencies. It is also a good idea to contact environmental organizations, citizens' groups and local government organizations for information. Forming a network with these groups will enable elected officials to collect information more efficiently and in greater depth. Following is a list of some agencies elected officials should contact:

Pennsylvania State Agencies

1. Department of Environmental Resources
 - Bureau of Waste Management
 - Bureau of Resources Programming
 - Bureau of Water Quality Management
 - Bureau of Air Quality
 - Bureau of Mines
2. Fish Commission
3. Game Commission
4. Pennsylvania Historical and Museum Commission
5. Pennsylvania Department of Transportation
6. Attorney General

Out-of-State Agencies

The environmental enforcement agencies of different states go by various names. These may include:

Environmental Protection Agency
(Ohio)

Department of Environmental
Protection (New Jersey)

Department of Health

Department of Health and
Environmental Resources

Department of Natural Resources.

Federal Agencies

1. U.S. Environmental Protection Agency
2. U.S. Geologic Survey
3. Internal Revenue Service
4. U.S. Army Corps of Engineers
5. Department of the Interior
 - National Park Service
 - Fish and Wildlife Service
6. Forest Service
7. U.S. Soil Conservation Service
8. U.S. Heritage Conservation and Recreation Service
9. Federal Insurance Administration
10. Bureau of Dams and Waterway Management
11. Federal Bureau of Investigation (FBI)

These are only a few examples. Other enforcement agencies in states where the developer has operated facilities should also be contacted. These can include attorney general offices as well as other environmental agencies, historical landmark agencies, etc. The more information local officials collect, the more prepared they will be to deal with the facility siting process.

Miscellaneous Organizations

- o Municipal authorities
- o Water authorities
- o Emergency management organizations
- o County planning departments
- o Councils of Government (COG)
- o Local government organizations
 - Association of Township Supervisors
 - League of Municipalities
 - County Commissioners Association
 - League of Cities
- o Municipalities that have been involved in a hazardous waste facility siting issue
- o Citizen and environmental groups
 - Environmental Defense Fund (EDF)
 - National Wildlife Federation (NWF)
 - Citizens Advisory Council (CAC)
 - Group Against Smog and Pollution (GASP)
 - Citizens Against Toxic Sites (CATS)
 - Pennsylvania United to Rescue the Environment (PURE)
 - Concerned Residents of the Yough (CRY)
 - League of Women Voters

Sierra Club
Federation of Sportsmen's
Clubs

Citizens Clearinghouse for
Hazardous Wastes
Pennsylvania Environmental
Council

- o Citizens who have been
involved in a hazardous
waste siting issue

These are a few of the organizations elected officials should contact to get information and assistance. A listing of these organizations, addresses and phone numbers is in the appendices. Remember, the more informed elected officials are, the better they will be able to support their position in a negotiating session or at a public hearing. An informed elected official is better able to protect the interests of the municipality and to provide for a better place for everyone to work, live and play in.

DISSEMINATING INFORMATION

Any and all information that the task force acquires should be made public to avoid any appearances that elected officials or the task force

is dealing secretly with the developer.

Information should be in an easily accessible location such as the public library or possibly the municipal building. It should be in a place in the building that is also easily accessible and available during the day, evening and weekend.

Elected officials should hold regular public meetings to inform the public about the investigation and its progress and to give the public the opportunity to ask questions about the facility and the status of the project. It is the responsibility of the elected officials to devise a method which is best suited to them and to the residents of how the information should be collected and made public.

Elected officials should remember that the residents of the municipality should be encouraged to participate in the investigations, all information should be made available to the public, the investigation should be conducted openly and public meetings should be called regularly to keep everyone informed.

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X. APPENDICES

G L O S S A R Y

Abandoned Site An inactive hazardous waste disposal or storage facility which cannot be traced to an owner or whose owner cannot afford the cost of cleanup or a location where illegal dumping has taken place.

Abatement A method of reducing the degree of pollution or the use of such a method.

Absorption Hazardous waste treatment which involves adding materials to the waste to decrease its fluid content.

Access Road Any road providing access to a treatment, storage or disposal area within a facility site, suitable for use by transport and emergency vehicles in all types of weather.

Acid A hydrogen-containing compound which reacts with water to produce hydrogen ions; a proton donor; a liquid compound with a pH of less than or equal to 2. Acidic chemicals are corrosive. Examples of acids are hydrochloric acid (HCl) and sulfuric acid (H_2SO_4).

Act of God An unanticipated natural disaster or other natural phenomenon of an exceptional, inevitable and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight, such as a flood, earthquake or storm.

Act 97 See Solid Waste Management Act, Pennsylvania.

Activated Carbon A highly absorbent form of carbon used to remove odors and toxic substances from gaseous emissions or liquid effluents.

Active Portion A portion of a facility where waste treatment, storage or disposal operations are being conducted.

Acute Health Effects Health effects that occur or develop rapidly after exposure to a substance.

Acutely Hazardous Waste A waste that presents a substantial hazard whether improperly managed or not. EPA includes in this category waste shown to be fatal to humans in low doses, those shown in mammalian studies to have specific toxicities, and explosives.

Adhesion Molecular attraction which holds the surfaces of two substances in contact, such as water and rock particles.

Aerobic Life or processes that occur in the presence of oxygen (O_2); growing only in the presence of oxygen, such as aerobic organisms; decaying only in the presence of oxygen, such as aerobic decomposition.

Aerosol Solid or liquid particles, usually less than one micron in diameter, suspended in a gaseous medium.

Air Monitoring The continuous sampling for and measuring of, pollutants in the atmosphere.

Alkali (Base); substance which reacts with water to form hydroxide ions; a liquid compound with a pH greater than or equal to 12.5. Alkaline chemicals are corrosive. A base accepts protons; examples of bases are sodium hydroxide (NaOH) and ammonia (NH_3).

Alum Chemical substance (usually potassium aluminum sulfate) that is gelatinous when wet; used in water treatment plants for settling out small particles of foreign matter.

Ammonia Stripping The method used in the treatment of ammonia-bearing wastes. By stripping alkaline aqueous wastes with steam in a special column, the ammonia readily condenses and can be reclaimed for sale. This process leaves liquids almost completely free of ammonia. It can also be used to remove various volatile and organic contaminants from the waste stream.

Anaerobic Life or processes that occur in the absence of oxygen; growing in the absence of oxygen, such as anaerobic bacteria; decaying in the absence of oxygen, such as anaerobic decomposition.

Analysis The separation of a compound into its constituent parts; the breaking down of a complex substance into simpler substances.

Appointing Authority The mayor in cities; the chairman of the board of commissioners in counties; the council in incorporated towns and boroughs; the board of commissioners in townships of the first class; and the board of supervisors in townships of the second class.

Aqueous Pertaining to, similar to, contained in or dissolved in water.

Aqueous Treatment A hazardous waste treatment system designed to remove contamination from water so that it can be returned to the environment safely.

Aquifer Geological formation, group of formations or part of a ground formation which is usually gravelly or porous and capable of yielding water to wells or springs.

Aromatic Pertaining to the six-carbon ring configuration of organic compounds such as benzene and its derivatives.

Article A manufactured item which has been formed to a specific shape, with a use or uses dependent in some way on its shape or design and which does not normally release or result in exposure to a hazardous chemical.

Ash The incombustible material that remains after a fuel or solid waste has been burned. May also include combustibles that, for whatever reason, did not burn.

Asphyxiants Volatile substances which induce anoxemia or an equivalent condition. They interfere with either the supply or the utilization of oxygen.

At Risk An individual or group who, because of particular biological, lifestyle and/or occupational/environmental exposures, have an increased likelihood of developing a disease or disability. This individual or population is said to be at risk for that disability/disease due to the presence of any one or a combination of the above-mentioned factors.

Bacteria Single cell, microscopic organisms that possess rigid cell walls. These are sometimes used in biological treatment processes of hazardous wastes.

Basal Cell Carcinoma The most common type of skin cancer. It forms in the lowermost layer of the skin, grows slowly and seldom spreads. It is easily detected and readily cured when treated promptly.

Base See Alkali.

Base Soils Unconsolidated material (sand, gravel, silt, etc.) separating the lower limits of refuse from groundwater and bedrock.

Basin Any uncovered device constructed of artificial materials used to retain wastes as part of a treatment process, usually less than 100,000 gallons. Examples include open mixing tanks, clarifiers and settling tanks.

Benign Tumor An abnormal swelling or growth that is not a cancer and is usually harmless.

Berm A ledge or shoulder, as along the edge of a paved road.

Bioaccumulation The process that occurs when toxic substances are passed up the food chain from soil to plants to grazing animals to humans. The concentration of e.g. toxic substances increases in organisms the higher they are in the food chain.

Bioassay The use of living organisms in the laboratory to determine the biological effect of some substance, factor or condition.

Biochemistry The study of the chemical structure and the chemical function of all living organisms.

Biological Hazardous Wastes Any substance of a human or animal origin other than food wastes which are to be disposed of and could harbor or transmit pathogenic organisms, including but not limited to pathological specimens such as tissues, blood elements, excreta, secretions, bandages, and related substances.

Biological Magnification The concentration of substances in organisms higher in the food chain. A very important mechanism in concentrating pesticides and heavy metals in organisms such as fish.

Biological Treatment A process where micro-organisms are used to degrade organic wastes and to render hazardous wastes non-hazardous or reduce their volume.

Blood Count An examination of the blood to count the number of white and red blood cells and platelets.

Body Burden The amount of a harmful material in the body at a given time.

Bottom Ash The non-airborne combustion residue from burning pulverized coal in a boiler. This material falls to the bottom of the stack and is removed mechanically. (Can also be from other combustible material such as trash paper etc.)

Brine Water saturated with or containing large amounts of salt.

Buffer Zone The minimum acceptable space between the active portion of a hazardous waste facility and the facility property line. This area is designed to reduce visual impacts, noise and odors and to lessen public health risks associated with accidental or gradual releases of hazardous substances. State or local standards normally determine the minimal width of a buffer zone.

Bureau of Waste Management The branch of DER which is responsible for planning, directing, evaluating, coordinating and organizing a statewide waste management and enforcement program including the Hazardous Waste Management Program.

By-product A material produced during the manufacturing process, in addition to the main product. It may be a waste or a commercial product.

Byssinosis One of the dust diseases; it is often called the brown lung disease. Whatever the name, cotton dust, flax or hemp breathed into the lungs over a period of time may harm the lungs.

Cancer A large group of diseases characterized by uncontrolled growth and spread of abnormal cells.

Captive Facilities Facilities which are located upon lands owned by a generator of hazardous waste and which are operated to provide for the treatment, storage or disposal solely of that generator's hazardous waste. See On-site Hazardous Waste Facility.

Carbon Sorption The process in which activated carbon, known as the sorbent, is used to remove certain wastes from water by holding them to the carbon surface.

Carcinogen Any substance that causes cancer.

Known Carcinogen Those carcinogens that have been demonstrated to definitely produce cancer in humans.

Suspect Carcinogens Compounds implicated in human cancer or shown to be carcinogenic in lab animals.

Carcinoma A form of cancer which arises in the tissues that cover or line such organs of the body as skin, intestines, uterus, lung, breast, etc.

Carcinoma in situ A stage in the growth of cancer when it is still confined to the tissue in which it started.

cc Cubic centimeter (equal to 0.06 of a cubic inch)

Ceiling Limit The maximum level of an environmental contaminant which should not be exceeded for any period of time.

Cell The basic unit of construction within a landfill consisting of the daily accumulation of waste and cover material.

Centrifugation A hazardous waste physical treatment process in which heavier particles in the fluid move to the walls of a rotation vessel and are removed.

Certification A statement of professional opinion based upon knowledge and belief. For example, a registered professional must certify that the liner system of a hazardous waste pile meets design specifications approved in the permit.

Chemical Any element, substance, chemical compound or mixture of elements, substances or compounds, not including food, drugs, cosmetics, tobacco or other products intended for sale on the retail market.

Chemical Abstracts Service Number The unique identification number assigned to a chemical by the Chemical Abstracts Service.

Chemical Cartridge The type of absorption unit used with a respirator for removal of low concentrations of solvent vapors and certain gases.

Chemical Identification Sheet or CIS A written document, prepared in accordance with the requirements of the Right-to-Know Act which contains the identity by chemical name, common name and Chemical Abstract Service Number.

Chemical Name The scientific designation of a chemical according to the nomenclature system developed by the International Union of Pure and Applied Chemistry or the Chemical Abstracts Service rules of nomenclature.

Chemical Oxygen Demand (COD) A means of measuring the pollution strength of domestic and industrial wastes based on the fact that all organic compounds, with few exceptions, can be oxidized by the action of strong oxidizing agents under acid conditions to carbon dioxide and water.

Chemical Treatment The process by which hazardous waste is rendered non-hazardous or suitable for transport by changing the chemical composition of such waste.

Chlorolysis Hazardous waste chemical treatment method by which chlorinated organic compounds are recycled and converted into useful industrial products through the addition and mixing of excess chlorine with the organic waste.

Chromatography An analytical technique for the separation and identification of chemical compounds.

Chronic Condition A condition which is long and drawn out in duration and usually incurable.

Chronic Health Effects Long-term effects or those that are revealed after the elapse of some time, such as cancer, from a one-time or repeated exposure to a substance.

Citizens Advisory Committee A group of local concerned individuals that corporations or local governments organize to recommend policies and review development strategies for treatment or disposal facilities.

Clarifier An apparatus for removing (by gravity) settled solids from a fluid.

Closed Portion Any portion of a facility where operations have been closed in accordance with the approved facility closure requirements of the Pennsylvania Hazardous Waste Management Regulations (75.260-75.267).

Closure Actions taken by the owner or operator of a hazardous waste facility to prepare the site for long-term care and to make it suitable for other uses after it has stopped accepting wastes.

CPN Certificate of Public Necessity; a declaration of the Pennsylvania Environmental Quality Board that a facility is necessary to meet state hazardous waste management needs, that the plans proposed are environmentally and technically acceptable and that the developer has involved the public in the siting process.

Coagulation The clumping of particles in order to settle out impurities; often induced by chemicals such as lime or alum.

Co-carcinogen When carcinogens are present together and enhance the action of each other.

Colloid A non-settling suspension of fine particles, larger than molecules but smaller than visible particles, which are not easily filtered.

Combustion Zone Temperature The temperature maintained inside the burning area of an incinerator; one of the most important factors for proper incineration of hazardous waste.

Commercial Establishment Any establishment engaged in a non-manufacturing or non-processing business.

Commercial HW Facilities Facilities which accept wastes from various generators for a fee.

Commercial Waste All solid waste that originates in a commercial establishment.

Common Name Any designation other than a chemical or trade name by which a substance is generally known. The common name is unique to a specific chemical or mixture.

Compatibility The ability of materials (usually waste fluid combinations or liners) to coexist without adverse environmental effects or health risks.

Compensation Any of several options a facility operator can use to encourage public acceptance of a facility site in a local area. They include payments to local governments in addition to applicable taxes, direct payment to landowners, purchase of buffer zones or provision of recreational areas.

Compliance Monitoring Program A program used to determine whether groundwater performance standards are exceeded.

Compliance Point A term used to describe the location where the groundwater protection standard is measured. According to the US EPA, the compliance point should be the edge of the waste management area.

Composting Controlled process of degrading organic matter by microorganisms.

Concentration The relative fraction of one substance in another, normally expressed in weight percent, volume percent or as a weight/volume ratio.

Concentration Limit The concentration level for each hazardous waste constituent which triggers initiation of a corrective action program.

Conductivity The ability to conduct or transfer heat and electricity.

Confined Aquifer An aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

Constituent A chemical component of a waste or chemical compound which qualifies a waste as hazardous under Section 75.261 of 25 Pa. Code Ch. 75, or which is listed as a hazardous waste or compound in Section 75.261.

Container Any portable device in which a material can be stored, handled, transported, treated or disposed of.

Contamination The degradation (to the extent of impaired usefulness) of water, air or soil.

Contingency Plan A document setting forth an organized, planned and coordinated course of action to be followed in order to prevent pollution incidents and to limit the extent of pollution in case of fire, explosion or discharge which would threaten human health and the environment.

Corrective Action Measures The removal or treatment in place of any hazardous constituents that exceed concentration limits in the groundwater or soil at a waste management facility.

Corrosive The quality of a waste which causes the gradual deterioration of another substance by chemical processes, such as oxidation or attack by acids. A substance is considered corrosive if it has a pH greater than or equal to 12.5 or less than or equal to 2.

Cost Criteria Facility or site-related factors for which specific dollar costs for construction, operation and maintenance are prescribed.

Cover Material Some type of soil compacted in layers over waste in order to minimize infiltration of precipitation and run-on that would leach through the waste.

Cradle-to-Grave The tracking of the source, quantity, concentration and type of hazardous waste from generation through final disposal.

Debris Any material resulting from the demolition of any structure, including stones, bricks, rocks, concrete, gravel or earth.

Dechlorination An experimental hazardous waste chemical treatment process which produces a change in the carbon-chlorine bonds in organic compounds high in chlorine (such as PCB and Kepone) with the use of reducing agents.

Decomposition A change in the composition of organic matter due to the actions of micro-organisms which break down the matter into simpler forms.

Decontamination The process of making a person, object or area safe by absorbing, destroying, neutralizing or making harmless by removing biological or chemical agents.

Deep-Well Injection The disposal of hazardous wastes by pumping into deep wells so that they can percolate through porous or permeable subsurface rock and then be contained within surrounding layers of impermeable rock or clay.

Delisting a Waste The process by which a facility proves to DER or EPA that its waste is fundamentally different from the wastes listed as hazardous and does not contain certain levels of listed hazardous constituents. It may be excluded from regulation if it does not meet any of the criteria of a hazardous waste.

Department of Environmental Resources (DER), Pennsylvania A governmental department created by Act 275 of the Pa. legislature in 1970 to bring within one body the administration of environmental legislation. Powers and duties of DER include developing environmental policies, management programs, rules, regulations and licensing procedures and enforcement mechanisms to protect the quality of Pennsylvania's natural resources.

DER The Department of Environmental Resources.

Detection Monitoring Program A program used to ensure that any leakage from a land treatment facility is discovered.

Detonation A hazardous waste treatment method which treats explosive waste by rapid combustion; explosive destruction.

Dialysis The process of separating a mixture of substances in solution by using a membrane as a filtering agent. In this process substances move through the membrane at varying rates and separate according to their relative molecular weights.

Diffusion 1) The mixing of substances, usually gases and liquids, due to molecular motion. 2) The spreading out of a substance, usually a gas, to fill a space.

Dike An embankment of natural or man-made materials constructed to contain or obstruct the movement of liquids, sludges or other substances.

Disaster Emergency Conditions likely to or actually affecting the safety, health or welfare of a substantial number of citizens or precluding the operation or use of essential public facilities; or conditions of such magnitude or severity as to make essential state supplementation of county or local efforts used to alleviate the danger or damage; or conditions caused by forces beyond human control or by unforeseen factors.

Discharge Any intentional or accidental emission or release of hazardous materials which, when released into land or water, become hazardous waste.

Disinfection Effective killing by chemical or physical processes of all organisms capable of causing infectious disease. Chlorination is the disinfection method commonly employed in sewage treatment processes.

Disposal The environmentally sound incineration, storage, treatment or discharge, deposit, injection, dumping, spilling, leaking or placing of a hazardous waste into or on land or water.

Disposal Facility A facility or part of a facility at which hazardous waste is intentionally placed into or on land or water and at which waste will remain after closure.

Distillation A physical treatment process which involves the evaporation of a liquid or slurry and separation of the components of the resulting vapor.

DNA (deoxyribonucleic acid) An essential component of all living matter and the basic chromosomal material transmitting the hereditary pattern.

Domestic Waste Solid waste, garbage and rubbish which originate in residential areas.

Drinking Water Supply Any raw or finished water source that is or may be used as a public water system or as drinking water by one or more individuals.

Dump A land site at which waste is disposed of in a manner which does not protect the environment, is susceptible to open burning or is exposed to the elements, vermin and/or scavengers.

Dust A collection of small, dry organic or inorganic particles formed when solid matter is broken down by natural and/or mechanical forces and are fine enough to remain suspended in the air for some time if disturbed.

Ecosystem The interacting system of a biological community and its non-living environment.

Effluent 1) Solid, liquid or gas wastes which enter the environment as a by-product of human processes. 2) The discharge or outflow of water from ground or sub-surface storage.

Electrodialysis The process of separating a mixture of substances in a solution by dialysis, using an electric field as the driving force.

Electrolysis A treatment method by which chemical changes are accomplished at the surface of electrodes carrying an electric current and immersed in a chemical solution.

Emergency Management Judicious planning, assignment and coordination of all available resources in an integrated program of prevention, mitigation, preparedness, response and recovery for all emergencies.

Emergency Service Preparation for and carrying out of functions to prevent, minimize and provide emergency repair of damage and injury resulting from disasters.

Emphysema A lung disease in which the walls of the air sacs (alveoli) have been stretched too thin and broken down. Emphysema has been linked to cigarette smoking.

Encapsulation A treatment process which encases or encloses the waste with either adhesive coating materials or specially lined containers such as steel lined drums or concrete blocks in order to isolate it and keep it from contaminating the environment.

Energy Recovery Obtaining energy from the controlled incineration or biogradation of solid waste.

Environment The sum total of all the external conditions that may act upon an organism or community to influence its development or existence.

Environment-Host-Agent A basic model of public health science. This model, called the Epidemiologic Triangle, states that an ecological approach is necessary to explain the occurrence of disease; disease cannot be attributed to the operation of any one factor.

Environmental Cancer Cancer caused, in part, by carcinogens present in the general surroundings or encountered in enclosed settings such as in the home, school or workplace.

Environmental Hazard Any substance or discharge determined to be a hazardous substance and which poses a danger if released into the environment.

Environmental Protection Agency, United States (EPA) Federal agency created by the Executive Reorganization Plan no. 3 in 1970 to consolidate federal regulatory authority over pollution. The agency has the power to administer programs which address the environmental problems of water and air pollution, pesticides, toxic substances, radiation, noise and solid and hazardous waste management.

Environmentally Sensitive Area Area that is exceptionally responsive to environmental change and especially prone to irreversible ecological upset. These can include wetlands, flood plains, permafrost areas, critical habitats of endangered species and recharge areas of aquifers.

EP Toxicity A characteristic that indicates the likelihood that certain metals and other constituents could be leached by an acid leaching medium in significant concentrations, as determined by a specific extraction procedure.

EPA The Environmental Protection Agency.

Epidemiology The study of incidence, distribution, environmental causes, and control of a disease in a population.

Estuary The widened channel of the mouth of a river in which influence of the tides is felt. Estuaries are delicate ecosystems that serve as nurseries, spawning and feeding grounds for a large group of marine species and provide shelter and food for birds and wildlife.

Evaporate To change a liquid or solid into its gaseous form.

Evaporation A treatment process by which suspended and dissolved solids are separated from liquid waste by evaporation of the liquid form.

Existing Hazardous Waste Management Facility Any storage, treatment or permitted disposal facility which was in operation on November 29, 1980 or for which construction was begun on or before November 19, 1980, the effective date of Act 97.

Existing Portion The land surface area of an existing waste management unit upon which wastes have been placed prior to the issuance of a permit.

Exposure Any situation where a person may ingest, inhale, absorb through the skin or eyes or otherwise come into contact with a chemical or mixture.

Facility The on-site structures and all adjoining land and rights-of-way used for treating, storing or disposing of hazardous wastes.

Feasibility Study A detailed examination of the technical, environmental, engineering, economic, legal and practical suitability of a proposed facility or technology for use at a specific location.

Filter A device or substance for straining out solid particles or impurities from a liquid or gas.

Filtration A treatment process which removes suspended particles from a liquid by forcing the fluid through a porous substance such as paper, cloth, fine clay, sand or charcoal, entrapping suspended particles on or within the filter medium.

Final Cover The cover material that is applied upon closure of a landfill and is permanently exposed at the surface.

Flocculation A treatment method by which suspended particles are assembled into larger, more settleable particles after the waste is mixed with chemical flocculants; this technique enhances the sedimentation process.

Flood Plain The lowland that borders a river, which is usually dry but is subject to flooding when the river overflows its banks.

Flotation A treatment process by which fine and light particles are separated from liquid by introducing fine gas bubbles which attach to the particles and rise to the surface, where the particles are collected by skimming mechanisms.

Fly Ash Fine particles of ash of a solid fuel which are either carried out of the flue with the waste gases produced during combustion or recovered from the waste gases.

Food Chain The dependence of one type of life on another, each in turn eating or absorbing a lower organisms in the chain.

Food Chain Crops Crops grown for human consumption, including tobacco, and feed for animals whose products or by-products will be used for human consumption.

Freeboard The vertical distance between the top of a tank sidewall or a surface impoundment dike or berm and the elevation of the highest surface of the waste contained in the tank or impoundment.

Free Liquids Liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

Fuel Any combustible substance which is burned to produce useful heat energy.

Fumes Suspension of very fine (less than 1.0 micron) solid particles in air. The term usually applies to freshly formed oxides of metals, such as zinc, iron and magnesium.

g Gram (equal to 1/1000 of a kilogram)

Gamma Ray Irradiation Experimental chemical waste treatment which disinfects waste by utilizing gamma radiation to destroy pathogens (disease-causing micro-organisms).

Garbage Decayable animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food.

Gases Fluids which normally occupy the space of enclosure and which can be changed to the liquid or solid state only by increased pressure and/or decreased temperature. A compound which is in the gaseous state under normal conditions.

Generator The persons or corporations who by nature of ownership, management or control are responsible for causing or allowing to be caused the creation of waste.

Governing Body The council in cities, boroughs and incorporated towns; the board of commissioners in townships of the first class; the board of supervisors in townships of the second class; the board of commissioners in counties of the second class A through eighth classes.

Government B Reader A physician who has had specialized training in the interpretation of chest X-rays for dusty lung disease and who passed a test given by the American College of Physicians/NIOSH.

Groundwater The portion of the subsurface water which is in the zone of saturation where nearly all openings between soil particles are filled with water; the area where water is apt to flow most freely.

Groundwater Plume A body of contaminated groundwater, originating from a specific source and influenced by such factors as the local groundwater flow pattern, density and concentration of contaminant and character of the aquifer.

Groundwater Protection Standard The level of groundwater contamination that triggers the need for corrective action measures; also defines the constituents that must be addressed in the compliance monitoring program for land disposal facilities.

Groundwater Quality The specific chemical, physical and biological properties of groundwater in a specific area. State and local standards determine its suitability as a drinking water supply.

Guidelines Informal, instructional state or federal agency directives that explain program regulations or policies not addressed clearly by law. Guidelines do not have the force of law.

Habitat The sum total of environmental conditions of a specific place that is occupied by an organism, a population or a community.

Hazard Warning Words, pictures and/or symbols appearing on a label to convey information regarding actions or cautions to be taken with the hazardous substance.

Hazardous Mixture Any mixture that contains one or more hazardous substances in a concentration determined by law.

Hazardous Substance Any material which is ignitable, corrosive, reactive or toxic and which poses a substantial or potential hazard to human health and safety or to the environment. Radioactive wastes are not included in this definition.

Hazardous Substance Fact Sheet or HSFS A written document prepared for the purpose of informing employees, employers or members of the general public about a hazardous substance.

Hazardous Waste Any waste which is ignitable, corrosive, reactive or toxic and which may pose a substantial or potential hazard to human health and safety or to the environment, when improperly managed.

Hazardous Waste Constituent A substance in a waste which causes that waste to be listed as hazardous by the DER.

Hazardous Waste Landfill An environmentally sound disposal facility or land where hazardous wastes can be placed without polluting the environment, not including a land treatment facility, a storage facility, a surface impoundment or an injection well.

Hazardous Waste Management The systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery and disposal of hazardous wastes.

Hazardous Waste Number The number assigned by DER to each hazardous waste listed and to each hazardous waste characteristic identified in the Pennsylvania Hazardous Waste Management Regulations.

Hazardous Waste Site A location where hazardous wastes are stored, treated, incinerated or otherwise disposed of.

Heavy Metals High-density metallic elements (e.g., mercury, chromium, cadmium, arsenic and lead) which are generally toxic to plant and animal life in low concentrations.

Hydration The process in which particles go into water solution and become surrounded by a sheath of water molecules.

Hydrolysis A treatment method by which chemical compounds are decomposed by a reaction with water; hydrolyzing agents such as alkaline solutions as well as high temperatures and pressures are often used to promote the desired reaction.

Hydrophilic (water loving); molecules or groups of molecules that associate with H_2O ; readily wet by water.

Hydrophobic Molecules or groups of molecules that are poorly soluble in water; water repellent or not wet by water.

Hydrophyte A plant growing in water or soil too waterlogged for most plants to survive.

Identification Number The individual number assigned to each generator, transporter and treatment, storage or disposal facility by state or federal regulatory agencies.

Ignitable Waste A liquid with a flash point less than 60°C (140°F), a waste which is an oxidizer or an ignitable compressed gas or a non-liquid which is liable to cause fires through friction, absorption of moisture or spontaneous chemical changes or which, when ignited, burns so vigorously and persistently as to create a hazard.

Impermeability As applied to soil or subsoil, the degree to which fluids, particularly water, cannot penetrate in measurable quantities.

Impoundment See Surface Impoundment.

Inactive Facility The EPA designation for a treatment, storage or disposal facility that has not accepted hazardous waste since November 19, 1980, the effective date of the Pa. Solid Waste Management Act of 1980.

Inactive Portion A portion of a hazardous waste management facility that has not operated since November 19, 1980, but which is not yet a closed portion.

Incineration The process by which waste volume is reduced by combustion in a controlled manner, the primary purpose of which is to thermally break down hazardous waste.

Incompatible Waste 1) A hazardous waste that is unsuitable for placement within a specific portion of a landfill because it may cause containment material to corrode or decay or which combined with other wastes might produce heat, pressure, fire, explosion, violent reaction, toxic dusts, mists, fumes or gases. 2) Hazardous wastes which, if mixed, would become more hazardous than either waste individually.

Industrial Hygienist The professional concerned with preventive medicine at the worksite. The industrial hygienist's functions are: recognition, evaluation and control of health hazards in the work environment and training and education of employers and employees.

Industrial Wastes Residual materials produced during or eliminated from an industrial operation as liquid, sludge or solid waste which need not be hazardous. They are also called residual wastes.

Infectious Wastes Wastes containing pathogens. See also Biologically Hazardous Wastes.

Infiltration The flow of a fluid into a substance through pores or small openings. Commonly used to denote the flow of water into soil material.

Injection The subsurface emplacement of a fluid or waste.

Injection Well A well into which hazardous waste fluids are injected.

Inner Liner A continuous layer or lining of material placed inside a tank or other container which protects the construction materials of the tank or container from the contents.

Inorganic Term used to designate compounds that are not derived from hydrocarbons.

Inorganic Compounds Chemical compounds which do not contain the element carbon.

Interim Authorization The conditional permission from EPA which enables a state to operate its own hazardous waste management program.

Interim Status A period of time which began November 19, 1980, when hazardous waste storage, treatment and disposal facilities and hazardous waste transporters could continue to operate under a special set of regulations until the appropriate permit or license application is or was approved by EPA or DER.

Ionization The process by which neutral atoms or groups of atoms become electrically charged, either positively or negatively, by the loss or gain of electrons.

Irritants Gases which would be regarded as corrosives. They injure the tissues of the respiratory tract and induce inflammation of the air passages or the lungs.

Isomer One or more substances with the same composition but with different properties.

kg Kilogram (equal to approximately 2.2 pounds)

Lagoon A shallow, usually artificial pond where sunlight, bacterial action and oxygen interact to restore wastewater to a reasonable state of purity. Any pond used for the temporary or permanent storage of liquid.

Land Burial The disposal of wastes into land, as in landfills, surface impoundments, permanent waste piles and underground injection wells. This method is used for hazardous substances that require permanent storage.

Land Treatment Facility A facility or part of a facility at which hazardous waste is applied or incorporated into the soil surface to encourage waste decomposition. If the waste will remain after closure of the facility, it is considered a disposal facility.

Landfill A facility for the disposal of solid or hazardous waste involving burial in an excavated area or natural depression. Environmental risks are usually lessened by spreading solid wastes in thin layers, compacting them and applying cover materials at the end of each operating day. See Sanitary Landfill.

Latency Period The time which elapses between exposure to a carcinogen and the first manifestation of damage.

LC₅₀ Median lethal concentration which is the statistical estimate of the concentration of a substance in air or water necessary to kill 50% of test organisms within a specified time period under standardized conditions.

LD₅₀ Median lethal dose which is the statistical estimate of the dosage of a substance necessary to kill 50% of an infinite population of test animals, as determined from exposure to the substance by any route other than inhalation within a specified time under standardized conditions.

Leachate A liquid containing decomposed waste, bacteria and other noxious and potentially harmful materials that drains from landfills. In a successful secure landfill, the leachate is trapped in the facility and is not released to groundwater.

Letter of Credit A written financial instrument requesting credit to be given to the entity in whose favor it has been drawn.

Liabile Legally responsible.

Liner A continuous layer of natural or synthetic materials beneath, on the sides or on the top of a storage or treatment device, surface impoundment, landfill or landfill cell which severely restricts or prevents the escape of hazardous waste, hazardous waste constituents or leachate or minimizes infiltration.

Liquid Organics Recovery The chemical or physical processing of certain hazardous wastes to separate contaminants from usable material so that the resulting product can be reintroduced in the marketplace.

Local Emergency Condition declared by local governing body in order to coordinate actions to prevent or alleviate damage.

Local Emergency Management Organization An emergency management office set up by each potential subdivision. Each organization is responsible for emergency management, response and recovery within the territorial limits of the political subdivision.

Long-term Care The post-closure monitoring and maintenance of a hazardous waste management facility in a manner that protects public health and the environment.

Maintenance The routine recurring work required to keep a facility in a condition that it may be continuously utilized in its original or designed capacity and efficiency. It includes inspection, testing, servicing, classification as to serviceability, repair, rebuilding and reclamation.

Malignant Leading toward progressive invasion of body tissues and probably ending in death.

Malignant Tumor Tumor made up of cancer cells. These tumors continue to grow and invade surrounding tissues; cells may break away and grow elsewhere.

Manifest A form used to identify the quantity, composition and origin, routing and destination of hazardous waste during transportation from the point of generation to the point of disposal, treatment or storage.

Man-made Disaster Any accident, explosion, shortage or other condition resulting from man-made causes which threatens or causes damage to property, human suffering, hardship or loss of life. Includes oil spills, hazardous and non-hazardous chemical spills and releases.

Material Safety Data Sheet or MSDS A written document prepared by a manufacturer, supplier or importer in conformity with the Right-to-Know law to transmit information concerning a chemical.

Melanoma A pigmented, highly malignant form of cancer of the skin. The tumor may vary in color from nearly black to almost white.

Membrane AN impermeable layer.

mg Milligram (equal to 1/1000 gram)

g Microgram (equal to 1/1000 milligram)

mg/m³ Microgram per cubic meter

Micron (equal to approximately 1/25,000 of an inch)

Microwave Plasma An experimental hazardous waste chemical treatment process by which new stable compounds are synthesized or molecules are decomposed by microwave reactions with gas molecules; the gas generated during the detoxification reaction is referred to as microwave plasma.

Microwaves Radio-frequency waves generated by electronic devices in which electrons are accelerated and directed toward a target.

Midnight Dumper A slang term for a person or company that disposes of hazardous wastes in an illegal manner.

Mine A large excavation made in the earth for the extraction of ores, coal, etc.

Mining Overburden Material overlying an economic mineral deposit that is removed to gain access to the deposit.

Mists Suspended liquid droplets generated by condensation from the gaseous to the liquid state or by breaking up a liquid into a dispersed state, such as by splashing, foaming and atomizing.

Mixture A combination of two or more chemicals not involving a chemical reaction.

Monitoring The ongoing surveillance of a waste disposal facility or site by measurements or observations of the operation or of the ambient air, groundwater, surface water and soil conditions.

Monofills Landfills, surface impoundments or waste piles used to treat, store or dispose of one or more of a small group of inorganic wastes. This group includes wastes that are hazardous solely because they exhibit the characteristics of EP toxicity.

Municipal Engineer A duly registered professional engineer employed by the municipality or engaged as a consultant.

Municipal Waste Garbage, refuse, industrial or office waste and other materials including solid, liquid, semi-solid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities and any sludge not meeting the definition of residual or hazardous waste in Act 97, from a municipal, commercial or institutional water supply, waste water treatment plant or air pollution control facility.

Municipality Any city of the second class A or third class, borough, incorporated town, township of the first or second class, county of the second class A through eighth class or any similar general purpose unit of government.

Mutagen Anything that causes a mutation. Most carcinogens are also mutagens. Testing a substance to see if it is a mutagen may be a fairly reliable way to see if it is a carcinogen. Such tests are easier, faster, and cheaper than the usual animal tests since they can be done with bacteria.

Mutagenesis The alteration of the inherited genetic material, i.e. alteration of DNA in the paternal or maternal reproductive cell which may cause birth defects.

Natural Disaster Any hurricane, storm, flood, earthquake, drought, fire, or other catastrophe which results in substantial damage to property, hardship, suffering or possible loss of life.

Natural Hazards Geologic, meteorological or biological conditions which affect the safety of facility operations, thereby posing potential risks to human health and the environment.

Natural Resources Land, fish, wildlife, air, water, groundwater, drinking water supplies, plants and animals and other such resources belonging to, managed by, held in trust by or otherwise controlled by national, state, or local governments, private concerns or individuals.

Neutralization The process by which acid or alkaline properties of a solution are altered by the addition of certain reagents to bring the hydrogen and hydroxide concentrations to an equal value, sometimes referred to as pH 7, the value of pure water.

Neutralization Surface Impoundments Surface impoundments used to neutralize wastes that are hazardous solely because they exhibit the characteristic of corrosivity. These impoundments contain no other wastes and neutralize the corrosive wastes sufficiently rapidly that there is no potential for migration of hazardous waste from the impoundment.

Neutralize To make harmless anything contaminated with a chemical agent. More generally, to destroy the effectiveness of an entity. To make an acid or base neutral - to bring to a pH of 7.

NIOSH National Institute for Occupational Safety and Health.

NIOSH Registry of Toxic Effects of Chemical Substances The online data base of the NIOSH Registry of Toxic Effects of Chemical Substances.

Non-point Source Source from which pollutants emanate in an unconfined and unchannelled manner, including water effluents not controlled through NPDES permits or traceable to a discrete identifiable origin but resulting from natural processes, such as nonchannelled runoff, precipitation, drainage or seepage and air contaminant emissions from landfills and surface impoundments.

NPDES (National Pollutant Discharge Elimination System) The national program established under the Federal Water Pollution Control Act which requires all point source discharges into any body of water to be permitted by EPA or the designated state agency. Minimum pretreatment requirements for such discharges are established under the program.

Nonconforming Structure Structure or part of a structure not designed to comply with the applicable use provisions in a zoning ordinance or amendment.

Occupational Cancer Cancer caused by carcinogens present in the work environment or encountered during performance of the job.

Occupational Health History A comprehensive chronology of an individual's place of employment, toxic exposures and work environments.

Off-site Hazardous Waste Facility (commercial hazardous waste facility) An operation involving handling, treatment, storage or disposal of hazardous wastes such that the waste is transported commercially to the site not owned by or leased to the generator and that the site receives waste from more than one generator.

On-site Hazardous Waste Facility The same or geographically contiguous property owned or leased or used by a generator or a hazardous waste management facility. See Captive Facility. Non-contiguous properties owned or leased by the same generator but connected by a right-of-way which he controls and to which the public does not have access.

Open Dump Site for the disposal of solid wastes which is not a sanitary landfill.

Operator The person responsible for the overall operation of a facility.

Organic Chemistry The science of the compounds of carbon.

Organic Matter Chemical substances containing the element carbon which originates in animal or plant life or in their derivatives, coal or petroleum.

OSHA Occupational Safety and Health Administration or Occupational Safety and Health Act.

Osmosis The tendency of a fluid to pass through a semi-permeable membrane, typically separating a solvent and a solution, so as to tend to equalize their concentrations on both sides of the membrane.

Owner The person or municipality who is the owner of record of a facility or part of a facility.

Oxidation The union of oxygen with a substance; an increase in oxidation number resulting from a loss of electrons. In hazardous waste management, the process in which a waste stream is treated with a strong oxidizing agent, changing the waste chemically to a less hazardous state.

Partial Closure Securing a portion of a facility when it is filled to capacity to prevent environmental damage while the remainder of the site is being filled.

Peptization Method of getting substances into colloidal suspension by breaking down larger particles.

Percolation The movement, flow or infiltration of water through the pores or spaces of rock or soil.

Permeability The property of soil or rock that allows passage of water through it. It depends not only on the volume of openings and pores, but also on how these openings are connected to each other.

Permeable Open to passage or penetration; used especially for a substance that allows the passage of fluids.

Permit Official approval and permission to proceed with an activity controlled by the permitting authority.

pH A numerical designation of relative acidity and alkalinity. A pH of 7.0 indicates precise neutrality; higher values indicate increasing alkalinity and lower values indicate increasing acidity. Pure water has a pH of 7.

Phase I RCRA The regulations promulgated in May 1980 which include the identification and listing of hazardous waste, standards for generators and transporters, interim status standards for owners of treatment, storage or disposal facilities, requirements for obtaining facility permits and rules governing delegation of authority to the states.

Phase II RCRA Technical requirements for permitting hazardous waste facilities which set specific standards for particular types of facilities to ensure the safe treatment, storage and disposal of waste of a permanent basis by methods that will protect human health and the environment. Phase II standards enable facilities to move from interim status to final facility permits.

Photon A minute packet of light energy.

Physical Treatment The physical removal of a hazardous substance from a waste stream or the reduction of the water content or solidification of the waste in order to render a waste non-hazardous.

Phytotoxic Poisonous to plants.

Pile A non-containerized accumulation of solid, non-flowing hazardous waste.

Point Source A discernible, confined and discrete conveyance from which pollutants are being or may be discharged. Examples include pipes, ditches, channels, tunnels, wells, etc.

Poison Any substance that causes injury, illness or death, especially by chemical means.

Political Subdivision Any county, city, borough, incorporated town or township.

Pollution Contamination of air, water, land or other natural resources that will or are likely to create a public nuisance or to render such natural resources harmful to public health, safety or welfare or to any legitimate beneficial uses or to other life forms.

ppb Parts per billion (1 ppb = one ten-millionth of one percent)

ppm Parts per million (1 ppm = one ten-thousandth of one percent)

ppt Parts per trillion (1 ppt = one thousandth of a ppb)

Radioactive Wastes Conventional materials that have been contaminated with radiation. They are not classified as hazardous and are not covered by RCRA or Act 97, but are specifically controlled by the U.S. Atomic Energy Act and P.L.s 807 and 1380, except as of July 3, 1986, EPA claims to regulate mixtures of hazardous waste and low-level radioactive waste.

Reactivity The tendency to explode under normal management conditions, to react violently or to generate toxic gases when mixed with water.

Recharge Zone Area through which water enters an aquifer.

Reclamation Restoration to a better or more useful state, such as land reclamation by filling, grading and seeding or obtaining useful materials from solid wastes.

Recoverable Capability and likelihood of being recovered from solid waste for a commercial or industrial use.

Recoverable Resources Materials that still have useful chemical or physical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purposes.

Recycling Using discarded objects and materials in original or changed form, rather than disposing of them, sending a material back into the process by which it was first formed.

Reduction Removal of oxygen from a compound; lowering of oxidation number resulting from gain of electrons.

Registered Professional Engineer An engineer registered to practice engineering within a state.

Reportable Quantity The minimum quantity of hazardous waste generated as a result of a discharge or spill which must be reported to DER.

Representative Sample A sample of a universe or whole, such as a waste pile, lagoon or groundwater, which can be expected to exhibit the average properties of the universe or whole.

Research and Development Laboratory A specially designated area used primarily for research and not primarily involved in the production of goods for commercial sale, in which chemicals are used by or under the direct supervision of a technically qualified person who understands the risks associated with the hazardous substance.

Residual Waste Garbage, discarded material or other waste including solid, liquid, semi-solid or contained gaseous materials resulting from industrial, mining and agricultural operations and sewage from water supply treatment facilities, waste water treatment facilities or air pollution control facilities, provided that such waste is not hazardous.

Residue Solid or semisolid materials such as ash, ceramic, glass, metal, and organic substances remaining after incineration or processing.

Resource Conservation Reduction of the amounts of solid waste that are generated; reduction of overall resource consumption and utilization of recovered resources.

Resource Conservation and Recovery Act (RCRA) Federal act giving EPA the authority to develop a nationwide program to regulate hazardous waste from cradle to grave and establish national regulations and guidelines for solid waste management including recycling, reuse and reclamation. Enacted in 1976, the Act was established to "protect human health and the environment from the improper handling of solid waste and encourage resource conservation."

Resource Recovery The extraction of useful materials or energy from waste; the reprocessing and reusing of these materials.

Resource Shortage The absence or reduced supply of any natural resource or commodity, goods or services which bear a relationship to the well-being of citizens.

Response Trust Fund A \$1.6 billion fund used for cleanup of abandoned and existing disposal sites (see Superfund). The sources of the money for this fund are industrial taxes on oil and certain chemical feedstocks (87% of sources) and federal appropriations (13%).

Retention Time The time waste is subjected to the combustion zone temperature in an incinerator.

Risk Assessment Evaluation of the threat to public health and the environment posed by a hazardous waste facility, considering the probability of incidents and their effects.

Risk Factors Factors whose presence is associated with an increased likelihood that disease will develop at a later time.

RNA (ribonucleic acid) An essential component of all living matter, one form of which carries genetic information.

Rubbish Solid wastes consisting of both combustible and non-combustible wastes, including paper, cardboard, tin cans, yard clippings, wood, glass, bedding, crockery and similar materials.

Run-off Rainwater, leachate or other liquid that drains overland from part of a facility.

Run-on Rainwater, leachate or other liquid that drains overland onto part of a facility.

Salt The compound of the negatively charged ion from an acid and positively charged ion from a metal or alkali base.

Sanitary Landfill A method of disposing of refuse on land without creating nuisances or hazards to public health and safety.

Saturated Zone A part of the earth's crust in which all voids are filled with water.

Sealed Package A portable container containing chemicals, sealed for transport and intended to remain sealed until reaching its final destination.

SIC number Standard Industrial Code number assigned to corresponding types of industry, manufacturing or product; prepared by the US Office of Management and Budget.

Silicosis A disease of the lungs caused by the inhalation of finely divided free silica dust. Where silica dust accumulates, fibrous tissue develops and grows around the particle. It is not as elastic as normal lung tissue and does not permit the ready passage of oxygen and carbon dioxide.

Slurry Thin mixture of a liquid and fine particles.

Smoke Carbon or soot particles less than 0.1 micron in size which result from the incomplete combustion of carbonaceous materials such as coal, oil, tar and tobacco.

Solid Waste Waste including municipal, residual or hazardous waste, consisting of solid, liquid, semi-solid or contained gaseous materials.

Solid Waste Management Act, Pennsylvania (Act 97) The 1980 Act designed to protect the citizens of Pennsylvania from the dangers of improper solid waste management. The Act gives DER the authority to regulate the handling of municipal, residual and hazardous wastes in Pennsylvania.

Solute The substance which is dissolved in the solvent to form a solution.

Solution A liquid mixture of 2 or more substances where one is dissolved in the other.

Solvent Liquid that is capable of dissolving another substance, used in a number of manufacturing/industrial processes including the manufacture of paints and coatings for industrial and household purposes, equipment clean-up and surface degreasing in metal fabricating industries.

Special Hazardous Substance A hazardous substance so designated because its particular toxicity, flammability, explosiveness or reactivity poses a special hazard to health and safety.

Spill A discharge.

Stabilization Hazardous waste chemical treatment method by which a chemical reaction produces an insoluble form of the waste or incorporates the waste into a form that is insoluble.

Stabilization Lagoon A shallow pond for the storage of waste water before discharge to a stream or to a treatment facility.

State Siting Regulations Agency-issued, state authorized directives to implement RCRA and Act 97, dealing with the approval or restriction of facility location and/or permitting processes.

Statistically Significant When the difference between a predicted and an observed value is so large that it is improbable that it could be attributed to chance.

Storage The containment of waste on a temporary basis in such a manner as not to constitute disposal of the waste. Containment of such waste for over a year constitutes disposal.

Storage Facility Any facility which stores wastes, except generators who store their own wastes for less than 90 days for subsequent transport off-site. Wastes stored for over one year are presumed to be disposed of unless there is clear and convincing evidence to the contrary.

Storage Tank Any manufactured non-portable covered device used for containing pumpable hazardous wastes.

Suit in Equity To ask the courts to order someone to make non-monetary restitution. DER has the authority to ask a court to order a hazardous waste handler to comply with regulations and terms of its permit.

Sump A stationary device designed to contain an accumulation of hazardous waste resulting from a hazardous discharge from a tank, container, waste pile, surface impoundment, landfill or other hazardous waste management structure.

Superfund The Comprehensive Environmental Response, Compensation and Liability Act of 1980 which provides the federal government with the mechanism to take emergency or remedial action to clean up both abandoned and existing disposal sites whenever there is a release or potential threat of a release of a hazardous substance which may present imminent and substantial danger to public health and welfare. Funds for these clean-up actions come from the \$1.6 billion trust fund called the Response Trust Fund.

Supplier Any source which manufactures, supplies or imports any chemical for sale, distribution or use.

Surety Bond A bond guaranteeing performance of a contract or obligation.

Surface Impoundment A facility or part of a facility which is a natural topographic depression, man-made excavation or diked area formed primarily of earthen materials (although it may be lined with synthetic materials) which is designed to hold an accumulation of liquid wastes or wastes containing free liquids and which is not an injection well. Examples are holding, storage, settling and aeration pits, ponds and lagoons.

Suspension A liquid mixture where a solid substance is present in the liquid in an undissolved state.

Synergism Cooperative action of substances whose total effect is greater than the sum of their separate effects.

Tank A stationary device designed to contain an accumulation of hazardous waste and constructed primarily or entirely of non-earthen materials such as concrete, steel and plastic which provides structural support and containment.

Teratogenesis Alteration in the formation of cells, tissues and organs resulting from physiologic and biochemical changes on a fetus during growth that may affect the function as well as the structure of developing cells.

Thermal Treatment Process by which hazardous waste is rendered non-hazardous or is reduced in volume by exposing the waste to high temperatures. The organic materials are oxidized and converted to carbon dioxide and water.

Time-weighted Average (exposure) An average of several samples taken at various times during a working day. Usually more representative of the true exposure to a person for evaluation of long term effects from a harmful agent.

TLV (threshold limit value) An exposure level under which most people can work consistently for eight hours a day, day after day, with no harmful effects.

Topography The configuration of the surface area, including its relative elevations and the position of natural and artificial features.

Totally Enclosed Treatment Facility A hazardous treatment facility which is directly connected to an industrial production process, constructed and operated to prevent waste release into the environment.

Toxic Waste A waste that poses a substantial present or potential hazard to human health or the environment when improperly managed. Such wastes include those which are carcinogenic, mutagenic, teratogenic, phytotoxic or toxic to aquatic species.

Toxicity A relative property of a chemical agent that refers to a harmful effect on some biologic mechanism and the condition under which this effect occurs.

Toxicology Study of the nature, effects and detection of poisons and the treatment of poisoning.

Trade Name Any designation or identification such as a code name or number or brand name used by a supplier or user to identify a chemical by another than its chemical or common name.

Trade Secret Any compilation of information known only to an employer and a limited number of other individuals and which is used in the production of a product or service which gives the employer a competitive advantage in the marketplace.

Treatment Any method, technique or process that changes the physical, chemical or biological composition of any hazardous waste and so renders it non-hazardous, safer for transport, capable of recovery and/or storage or reduces its volume.

Treatment Zone The area within a land treatment unit in which all degradation, transformation or immobilization of hazardous constituents must occur.

UN Number Numbering system adopted by the United Nations Committee of Experts on the Transport of Dangerous Goods. A number assigned to a corresponding individual chemical compound; includes North American numbers (NA).

Unsaturated Zone Region between the land surface and the upper boundary of the zone of saturation or water table.

Valence Electrons The electrons in the highest energy level of an atom, available for bonding.

Vapors The gaseous form of substances, normally in the solid or liquid state which can be changed to these states either by increasing the pressure or decreasing the temperature alone. A compound which is normally a solid or liquid but becomes gaseous under other conditions.

Vectors A life form which transmits infectious agents by biting through the skin or by depositing infective material on the skin or in food; any animal involved directly in the transmission of communicable diseases.

Virgin Material Raw material, including previously unused ores and any undeveloped resource that is or might become a source of raw materials.

Viruses Self-replicating infectious nucleic acid-protein complexes which require intact host cells for their replication and which contain a chromosome of either DNA or RNA.

Volatile Evaporating readily at normal temperature and pressure.

War-caused Disaster Any condition following an attack resulting in damage to property or injury to people caused by weapons or warfare.

Waste Exchange Waste clearinghouses where pretreated or untreated wastes are transferred operating on the principle that "one man's waste can be another man's feedstock."

Waste Management The total process of waste collection from its point of generation through its transportation, treatment and final acceptable disposal or reuse.

Waste Pile See Pile.

Waste Transfer Center A receiving area where waste is collected for transport to a disposal or treatment site.

Water Table The top of the zone of saturation in the ground.

Well A driven, drilled, bored or dug vertical excavation, with a depth greater than the largest surface dimension, generally cylindrical, often walled to prevent caving-in.

Wetlands Areas where water is near, at or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which have soils indicative of wet conditions.

Zone of Aeration See Unsaturated Zone.

Zone of Influence Maximum extent to which a waste disposal facility will affect surface and groundwater quality.

Zone of Saturation See Saturated Zone.

ACRONYMS

AASA	Agricultural Area Security Act
ACS	American Chemical Society
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BAT	Best Available Technology
BCT	Best Conventional Technology
BLM	Bureau of Land Management
BWM	Bureau of Waste Management, Pennsylvania Department of Environmental Resources
CAA	Clean Air Act (as amended in 1977)
CAC	Citizens Advisory Council
CDC	Centers for Disease Control
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund)
CFR	Code of Federal Regulations
CMA	Chemical Manufacturers Association
CPN	Certificate of Public Necessity
CSL	Pennsylvania Clean Streams Law
CWA	Clean Water Act of 1977
DCA	Department of Community Affairs
DER	Department of Environmental Resources
DOE	Department Of Energy
DOT	Department Of Transportation
EHB	Environmental Hearing Board
EPA	Environmental Protection Agency
EQB	Environmental Quality Board
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FHSLA	Federal Hazardous Substance Labeling Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FPMA	Flood Plain Management Act
FWPCA	Federal Water Pollution Control Act of 1972
HWM	Hazardous Waste Management
HWMF	Hazardous Waste Management Facility
IARC	International Agency for Research on Cancer
IRPTC	International Register of Potentially Toxic Chemicals
NAAQS	National Ambient Air Quality Standard
NCI	National Cancer Institute
NEPA	National Environmental Policy Act
NIEHS	National Institute of Environmental Health Sciences
NIOSH	National Institute for Occupational Safety and Health

NPDES	National Pollutant Discharge Elimination System
NRT	National Response Team
NSF	National Science Foundation
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
OSHACT	Occupational Safety and Health Act
OSW	Office of Solid Waste
	U.S. Environmental Protection Agency
PAC	Public Advisory Committee
PCB	Polychlorinated Biphenyl
PEC	Pennsylvania Environmental Council, Inc.
PEMA	Pennsylvania Emergency Management Agency
PERF	Pennsylvania Environmental Research Foundation, Inc.
PPC	Preparedness, Prevention and Contingency
PENN DOT	Pennsylvania Department of Transportation
RA	Regional Administrator
RCRA	Resource Conservation and Recovery Act
SDWA	Safe Drinking Water Act
SIC	Standard Industrial Code
SIP	State Implementation Plan
SWAC	Solid Waste Advisory Committee
TA	Technical Assistance
TAC	Technical Advisory Committee
TRST	Technical Resource Support Teams
TSCA	Toxic Substance Control Act
TSD	Hazardous Waste Treatment, Storage, and Disposal Facility
UNEP	United Nations Environment Program
USGS	United States Geological Survey
WHO	World Health Organization
WRC	Waste Resources Council

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Somerset, Washington, Westmoreland
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DER
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McKean, Mercer, Venango, Warren
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NATURAL RESOURCE USE AND MANAGEMENT

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Williamsport

Mary Jo White, Corporate Secretary and Attorney
Quaker State Oil Refining Company
Oil City

Previous Members

James K. Adams (December 1980-December 1983)
Susquehanna County Commissioner
Montrose

Carol Baker (December 1980-July 1981)
ACID
Lewistown

Fred Baker (May 1982-December 1983)
Pennsylvania State Association of Township Supervisors
Camp Hill

Martha Connamacher (December 1980-December 1983)
Cheswick

John Dorin (December 1980-December 1983)
GTE Products Corporation
Montoursville

Carol Eshelman (December 1980-December 1983)
League of Women Voters
Newtown Square

Lee Janiczek (December 1980-August 1983)
Springfield Township Commissioners
Springfield

Ronald E. Klinge (December 1980-July 1982)
Mill Service, Inc.
Hermitage

Michael D. LaGrega (December 1980-December 1983)
Bucknell University
Lewisburg

Robert Schultz (December 1980-May 1981)
Pennsylvania State Association of Township Supervisors
Camp Hill

Thomas P. Shelburne (December 1980-December 1983)
Tunkhannock

Gordon West (December 1980-November 1982)
Rohm and Haas Company
Philadelphia

GROUPS AND INDIVIDUALS INVOLVED IN ENVIRONMENTAL CONFLICT RESOLUTION

American Arbitration Association
Research Institute
1700 Broadway - Suite 1702
New York, NY 10019
(212) 246-1839
Donald B. Straus, President

Center for Collaborative Problem Solving
185 Berry Street
San Francisco, CA 94107
(414) 777-0395
Jane Voget, Director

Clark-McGlennon Associates, Inc.
148 State Street
Boston, MA 02109
(617) 742-1580
Peter B. Clark and John A. S. McClennon,
Principals

The Conservation Foundation
RESOLVE, Center for Environmental
Conflict Resolution
1717 Massachusetts Avenue, N.W.
Washington, DC 20036
(202) 797-4373
Gail Bingham

Institute for Environmental Negotiation
Campbell Hall
University of Virginia
Charlottesville, VA 22903
(804) 924-1970
Richard Collins, Director
Bruce Dotson, Assistant Director

Federal Mediation and Conciliation Service
Office of Mediation Services
2100 K Street N.W.
Washington, DC 20427
(202) 653-5320
Harold E. Davis, National Representative
for New Area Development.

Institute for Environmental Mediation
3318 Queen Anne Avenue North
Seattle, WA 98108
(206) 285-4641
Gerald W. Cormick, Executive Director
Leah K. Patton, Director of Mediation Services

Institute for Mediation and Conflict Resolution
116 East 27th Street
New York, NY 10016
(212) 685-4400
Laura D. Blackburne, Chief Executive Officer
Jeff Jefferson, Vice President for Training

Jane McCarthy
29 East Ninth Street
New York, NY 10003
(212) 484-4105

New England Environmental Mediation Center
190 High Steet
Boston, MA 02110
(617) 451-3670
William R. Humm, Executive Director
David O'Connor and Susan Carnduff

Francis X. Quinn, S. J.
Mediator
Editor Ethical Aftermath Series
111 S. 16th Street
Longport, NJ 08403

Rivkin Associates
2900 M Street, N.W.
Washington, DC 20007
(202) 337-3100

Scientists' Institute for Public Information
355 Lexington Avenue
New York, NY 10017
(212) 661-9110
Alan McGowan

Lawrence Susskind
Associate Professor and Department Head
Department of Urban Studies and Planning
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, MA 02139
(617) 253-2026

Wisconsin Center for Public Policy
Environmental Mediation Project
1605 Monroe Street
Madison, WI 53711
(608) 257-4414
Howard S. Bellman, Project Director
Cynthia Sampson, Project Coordinator

ENVIRONMENTAL AND CITIZENS ORGANIZATIONS

Concerned Residents of the Yough
(CRY)
Box 259
Yukon, PA 15698
(412) 722-3092

Environmental Defense Fund
(EDF)
444 Park Avenue South
New York, NY 10016
(212) 686-4191
or
1616 P Street, N.W.
Washington, DC 20036
(202) 387-3500

National Wildlife Federation
(NWF)
1412 Sixteenth Street, N.W.
Washington, DC 20036-9967

Natural Resources Defense Council
(NRDC)
1350 New York Avenue, N.S.
Suite 300
Washington, DC 20005
(202) 783-7800

Pennsylvanians United to Rescue
the Environment (PURE)
R.D.#1, Box 60
Seven Valleys, PA 17360

Citizens Against Toxic Sites
(CATS)
P. O. Box 815
Bessemer, PA 16112
or
P. O. Box 2366
New Castle, PA 16102

Citizens and Laborers for
Environmental Action Now, Inc.
(CLEAN)
200 East Water Street
Lock Haven, PA 17745

Citizens Clearinghouse for
Hazardous Wastes
P. O. Box 926
Arlington, VA 22216
(703) 276-7070

Clean Water Action Project
733 15th Street, N.W.
Suite 1110
Washington, DC 20005
or
107 Sixth Street
Room 1207
Pittsburgh, PA 15222
(412) 765-3053

ORGANIZATIONS TO CONTACT FOR MORE INFORMATION

For General Information:

Department of Environmental Resources
Bureau of Solid Waste Management
P. O. Box 2063
Harrisburg, PA 17120
(717) 787-6239

For Delaware, District of Columbia, Maryland, Pennsylvania, Virginia,
and West Virginia contact:

EPA Region 3
Hazardous Waste Management Division,
Waste Management Branch
841 Chestnut Street
Philadelphia, PA 19107
(215) 597-0980

For Information Concerning RCRA or Superfund:

EPA RCRA Hotline
(800) 424-9346

For Technical Assistance:

PENNTAP
Pennsylvania State University
501 Keller Building
University Park, PA 16802
(814) 875-0427

For a Listing of Treatment, Storage and Disposal Facilities.

Pennsylvania Environmental Research Foundation
225 S. 15th St., Mezzanine, Lewis Tower Bldg.,
Philadelphia, PA 19102

Department of Environmental Resources
Bureau of Solid Waste Management
P. O. Box 2063
Harrisburg, PA 17120
(717) 797-6239

For Information on Waste Exchange Programs as Alternative to Waste Disposal:

U.S. EPA
Office of Solid Waste
401 M. Street, S.W. (WH-563)
Washington, DC 20460
(202) 755-6572

Walker Banning, Manager
Northeast Industrial Waste Manager
90 Presidential Plaza, Suite 122
Syracuse, NY 13202
(315) 422-6572

For Information on the Transportation of Hazardous Waste:

Gary W. Moulder
PA Department of Transportation
Hazardous Substance Division
Regulation Compliance Section
Transportation & Safety Bldg., Room 215
Harrisburg, PA 17120
(717) 787-7444

For Information on Financial Assistance Programs for Hazardous Waste Management, Free Publications, and Information on Hazardous Waste Regulations:

EPA Small Business Ombudsman Hotline
(800) 368-5888

To be Placed on EPA's Mailing List for Current and Upcoming Regulatory Actions likely to Affect Small Business:

EPA
Office of Regulation Management
(202) 382-5480

To Report Oil and Hazardous Substances Releases:

National Response Center
(800) 424-8802

Pennsylvania Emergency Management Agency for your county coordinator:

Field Offices:
Eastern Area (215) 562-3003
Central Area (717) 374-2055
Western Area (412) 357-2990
or your local fire or police

For Assistance in Resolving a Conflict or Dispute:

EPA Small Business Ombudsman
(800) 368-5888

For Information on Upcoming Seminars, to Procure a Speaker, or to Obtain an Informative Slide Show:

Pennsylvania Environmental Research Foundation
225 S. 15th St., Mezzanine, Lewis Tower Building
Philadelphia, PA 19102
(800) 322-9214
(215) 735-0966

or

Pittsburgh Pennsylvania Environmental Research Foundation
345 Fourth Avenue
Standard Life Building, Suite 903
Pittsburgh, PA 15222
(412) 281-3044 or 281-3045

For Other Information:

Small Business Administration
Small Business Action Center
(717) 783-5700

Pennsylvania Environmental Research Foundation
(800) 322-9214

INSTRUCTION SHEET

*** MUNICIPAL NOTIFICATION OF PERMIT APPLICATION**

Act No. 14, P.L. 834 amends the Commonwealth's Administrative Code effective April 17, 1984 and requires that:

(1) The Department of Environmental Resources shall require every applicant for the following permits and permit revisions to give written notice to each municipality in which the activities are located:

- i. air quality permits under the Air Pollution Control Act;
- ii. water allocation permits;
- iii. water obstruction permits;
- iv. water quality permits (except relating to mining), and
- v. solid waste management permits including municipal, residual and hazardous waste permits.

(2) The Department may not issue a permit within 30 days of the notices described in paragraphs (i), (ii), (iii) and (iv) above or within 60 days of the notice described in (v) above.

(3) This requirement does not apply to permits relating to coal mining.

In submitting your application to DER for any of the above noted permits, you are to provide:

1. a copy of your correspondence notifying the municipality(ies) in which the permitted activity will occur of your intentions, and
2. evidence that the municipality(ies) have received your notification. Acceptable forms of this include - certified mail receipt; or written acknowledgement of the notification from the municipality(ies).

Failure to provide a copy of your notification correspondence and evidence of municipal receipt of your notification with the application will delay processing of your permit application. Failure to comply with Act No. 14, P.L. 834 will result in permit denial.

*** YOU MUST NOTIFY BOTH COUNTY & TOWNSHIP**

Subchapter F. CRITERIA FOR SITING HAZARDOUS WASTE TREATMENT AND DISPOSAL FACILITIES

Authority

The provisions of this Subchapter F were adopted under the authority of the Solid Waste Management Act, Act of July 7, 1980 (P.L. 380, No. 97), sections 104, 105 and 507 (35 P.S. §§6018.104, 6018.105 and 6018.407) and section 1920-A of the Administrative Code, Act of April 9, 1929 (P.L. 177, No. 175) (71 P.S. §510-20).

Source

The provisions of this Subchapter F were adopted July 30, 1985 and were effective September 21, 1985, 15 Pa. B. 3334.

GENERAL PROVISIONS

§ 75.401. Definitions.

(a) The following words and terms when used in this subchapter shall have the meanings given to them, unless the context clearly indicates otherwise:

Active water supply — A water supply in use prior to both the receipt of a permit application and the establishment of a public participation program for a hazardous waste management facility.

Facility site — All contiguous land owned or under the control of an owner or operator of a hazardous waste facility and identified in a permit or permit application.

Wetlands — Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas. The term includes but is not limited to wetland areas listed in the State Water Plan, the United States Forest Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan, the U.S. Fish and Wildlife National Wetland Inventory and any wetland areas designated by a river basin commission.

(b) All other words and terms not otherwise defined in this subchapter shall have the meanings ascribed to them in § 75.260.

SCOPE AND APPLICABILITY

§ 75.411. Scope and Applicability.

The requirements of this subchapter apply to siting of hazardous waste treatment and disposal facilities. The hazardous waste treatment or disposal facility must satisfy all other applicable requirements of this Chapter. The criteria for siting hazardous waste treatment and disposal facilities are divided into two phases as described in §§ 75.412 and 75.413.

§ 75.412. Phase I.

Phase I, exclusionary criteria are established in §§ 75.421—75.429 and prohibit the siting of a hazardous waste treatment or disposal facility in an excluded area delineated under these criteria. The Department will deny a permit application without further review if the Department determines the proposed facility is located in an excluded area. Phase I criteria apply to all hazardous waste treatment or disposal facilities, except: facilities that were sited and substantially constructed in good faith prior to the effective date of these regulations; and modifications to facilities which are within the existing facility site.

§ 75.413. Phase II.

Phase II criteria are established in §§ 75.441—75.450 and identify further environmental, social and economic factors which may affect the suitability of a location for a proposed facility. Phase II criteria apply to all hazardous waste treatment or disposal facilities and modifications thereto. If a facility site does not satisfy a Phase II criteria, the applicant must submit additional information and analyses to allow the Department to assess what effect, if any, failure to satisfy the criterion has upon the acceptability of the facility site. The Department will provide notice to municipal officials and other interested persons in order to solicit further information regarding potential effects of a failure to meet Phase II criteria at the proposed facility site. The Department may undertake additional investigations and after consideration of all relevant information, will determine whether the proposed design, construction and operation of the facility will successfully mitigate adverse effects which would otherwise be associated with failure to satisfy the criterion. After evaluating each Phase II criterion individually the Department will evaluate the facility's overall compliance with the Phase II criteria, and will identify risks that have not been eliminated through mitigation measures. If risks to the public health or safety, or to significant natural, scenic, historic or aesthetic values remain, which, in the judgment of the Department, render the proposed facility site unacceptable for a hazardous waste treatment or disposal facility, the Department may include conditions in the permit which eliminate or reduce the identified risks or may deny the permit application.

§ 75.414. Distances.

The distances from a facility to a feature or structure described in these criteria shall be measured from the perimeter of the facility site.

PHASE I EXCLUSIONARY CRITERIA

§ 75.421. Water Supply.

- (a) Landfill, land treatment and surface impoundment facilities shall not be sited:
- (1) Within one-half mile of any well or spring used for a community water supply;
 - (2) Within one-half mile of either side of a stream or impoundment for a distance of five stream miles upstream of any surface water intake for a community water supply;
- or
- (3) Within one-half mile of any off-site private or non-community public well or spring used as an active water supply, unless prior to operation of the facility the applicant demonstrates the availability of an acceptable permanent alternative supply of like quantity, yield and quality to the existing supply, and provides financial assurance that the alternate supply will be made available at no additional cost to the water supply owner for a period of time that shall be no less than the bond liability period established in § 75.323. If a permit is granted it shall include a permit condition which requires installation of the alternative water supply prior to operation of the facility.

(b) A permanent alternative supply may be provided through the development of a new well with a distribution system, interconnection with a public water supply, extension of a private water supply, or similar proposals, but does not include provision of bottled water or a water tank supplied by a bulk water hauling system.

(1) The applicant must demonstrate good faith efforts to reach agreement with the water supply owner regarding the provision of an acceptable permanent alternative water supply.

(2) In the event that the applicant is unable, despite good faith efforts, to reach agreement with the water supply owner, the applicant must demonstrate to the Department that an acceptable permanent alternative water supply is available, has been offered and will be provided to the water supply owner.

(3) The Department will determine that an alternative permanent water supply is acceptable if the quality and quantity satisfy all requirements for public water supplies established in the Pennsylvania Safe Drinking Water Act, Act of May 1, 1984, (P.L. 206, No. 43), 35 P.S. §721.1 *et seq.* and 25 Pa. Code Chapter 109 (relating to Safe Drinking Water). The Department may require the alternative water supply to provide higher quality, quantity or yield of water than that required to be delivered by public water systems if the water supply owner demonstrates that such higher quality, quantity or yield is necessary to continue a pre-existing use of substantial economic value.

§ 75.422. Flood Hazard Areas.

(a) Surface impoundment, landfill and land treatment facilities shall not be sited in the 100-year floodplain or such larger area as the flood of record has inundated.

(b) Treatment and incineration facilities shall not be sited in the 100-year floodplain or such larger area as the flood of record has inundated unless the industrial use on the proposed site was in existence as of the effective date of the Pennsylvania Flood Plain Management Act, Act of October 4, 1978 (P.L. 851, No. 166) (32 P.S. §§679.101—679.601).

§ 75.423. Wetlands.

Treatment and disposal facilities shall not be sited in wetland areas.

§ 75.424. Oil and Gas Areas.

Surface impoundment, landfill and land treatment facilities shall not be sited over active or inactive oil and gas wells or gas storage areas located within or beneath the facility site. "Active or inactive oil and gas wells or gas storage areas" shall have the same meaning as in the Oil and Gas Act of 1984 (58 P.S. §601.101 *et seq.*).

§ 75.425. Carbonate Bedrock Areas.

Surface impoundments, landfill and land treatment facilities shall not be sited over limestone or carbonate formations, where the formations are greater than five (5) feet in thickness and present at the topmost geologic unit. Areas mapped by the Pennsylvania Geologic Survey as underlain by such formations shall be excluded unless competent geologic studies demonstrate the absence of such formations under the facility site.

§ 75.426. National Natural Landmarks and Historic Places.

Treatment and disposal facilities shall not be sited within National Natural Landmarks designated by the National Park Service or historic sites listed on the National Register of Historic Places, unless the statute under which the designation or listing has been made authorizes the operation of such facilities in such areas.

§ 75.427. Dedicated Lands in Public Trust.

Treatment and disposal facilities shall not be sited on lands in public trust including state, county or municipal parks, units of the National Parks System, state forests, the Allegheny National Forest, state game lands, property owned by the Pennsylvania Historical and Museum Commission, a national wildlife refuge, national fish hatchery or national environmental center unless the agency administering such lands has been given authority by statute or ordinance to allow the operation of such facilities on such lands.

§ 75.428. Agricultural Areas.

Treatment and disposal facilities shall not be sited in agricultural areas established under the Pennsylvania Agricultural Area Security Law, 3 P.S. §§901—905, or in farmlands identified as Class I agricultural land by the Soil Conservation Service.

§ 75.429. Exceptional Value Waters.

Treatment and disposal facilities shall not be sited in watersheds of Exceptional Value Waters.

PHASE II CRITERIA

§ 75.441. Water Supply.

(a) The applicant shall determine whether a proposed surface impoundment, landfill or land treatment facility is within the ground-water recharge area for any public or private water supplies. The applicant shall delineate the position of the proposed facility site within relevant ground-water flow systems. The applicant shall identify all public and private water supplies and water treatment plants which may potentially be adversely affected by ground-water flow associated with the proposed hazardous waste facility (i.e., the water supplies located down-gradient in the flow path from the facility).

(b) For any water supplies or water treatment plants which may be affected by the proposed facility, the applicant shall submit a detailed hydrogeologic study including information addressing the following.

- (1) hydraulic conductivity of the aquifer for the water supplies;
- (2) hydraulic conductivity of the geologic deposits underlying the proposed facility;
- (3) assessment of the influence of faults, fractures, or other structural geologic features upon hydraulic conductivity and groundwater flow directions;
- (4) pumping rates of water supply wells and the areal extent and configuration of the cone of pumping depression associated with these wells in relation to the groundwater table of the surrounding areas.

(c) For any water supplies or water treatment plants which the hydrogeologic study required in paragraph (b) indicates may be adversely affected by the proposed facility, the applicant shall demonstrate:

- (1) The hydrogeologic characteristics of the proposed facility site and adjacent areas assure that implementation of a groundwater monitoring well program will provide protection of water supplies or water treatment plants from potential contamination; and
- (2) The feasibility of providing a permanent alternative water supply acceptable to the water supply owner of like quantity and quality to the existing supply at no additional cost to said owner.

(a) *Faults.* Landfill, land treatment and surface impoundment facilities are deemed to be acceptable if located one mile or more from a major structural feature. A major structural feature is a fault mapped by the Pennsylvania Geologic Survey or the United States Geological Survey at a scale of four miles to the inch. If the proposed facility is within one mile of a major structural feature, the applicant shall provide information and analyses to allow the Department to assess the compatibility of the proposed facility design with such faults in the area.

(b) *Bedrock Depth.* For surface impoundment, landfill and land treatment facilities, a depth to bedrock of fifteen (15) feet or more shall be considered acceptable. Where the construction of the proposed facility requires excavation, the final depth to bedrock shall be considered. The applicant shall address any lesser bedrock depths by providing information and analyses to allow the Department to assess the compatibility of the design and construction of the proposed facility with the bedrock depth.

(c) *Slopes.* Slopes less than 15% for surface impoundment, landfill and land treatment facilities shall be considered acceptable. The applicant shall address any greater slopes by submitting information and analyses to allow the Department to assess the compatibility of the design and construction measures for the proposed facility that would minimize any adverse effects.

(d) *Landslide prone areas.* If a facility site is in a landslide prone area or is adjacent to a landslide prone area, the applicant shall submit information and analyses to allow the Department to assess whether the design measures provide adequate protection from potential landslides.

(e) *Oil and Gas Wells.* Surface impoundment, landfill and land treatment facilities shall be considered acceptable if the applicant can establish that abandoned oil and gas wells and gas storage areas do not exist within the proposed facility site. "Abandoned oil and gas wells and gas storage areas" shall have the same meaning as in the Oil and Gas Act of 1984 (58 P.S. §601.101 *et seq.*). If such abandoned facilities exist, the applicant shall provide information and analyses to allow the Department to assess the probability and degree of any subsurface discharges to be expected from the existence of abandoned oil and gas wells and gas storage areas within the facility site after such wells are plugged.

(f) *Carbonate Areas.* Where surface impoundment, landfill, or land treatment and disposal facilities are proposed over areas underlain by carbonate bedrock, the applicant shall provide information and analyses to allow the Department to assess the prevalence of solution channels and the potential for sinkholes at the facility site.

(g) *Hydrogeology.* A surface impoundment, landfill or land treatment facility shall not be located in an area underlain by coarse unconsolidated deposits such as well sorted valley fill deposits and heavily fractured bedrock. If any other facility is to be located in an area underlain by coarse unconsolidated deposits the applicant shall provide information and analyses to allow the Department to further assess the facility site to determine the environmental impact of these subsurface conditions.

(h) *Seismic Risk Zones.* If a proposed treatment or disposal facility is within a five (5) mile radius of earthquake epicenters as mapped by the Pennsylvania Geologic Survey or the United States Geological Survey, the applicant shall specify design measures necessary to withstand potential seismic events, and the Department shall determine whether the proposed design measures provide adequate protection from potential earthquake damage.

§ 75.443. Soils.

(a) *pH*. Land farming facilities located so the soil pH within the proposed facility is 6.0 or greater shall be deemed to be acceptable. If the proposed facility cannot meet the above soil pH requirements, the applicant shall provide information and analyses to allow the Department to assess the ability of the proposed facility to mitigate adverse environmental effects resulting from incompatible soil pH.

(b) *Cation Exchange Capacity*. Surface impoundment, landfill and land treatment facilities located so that the capacity of the soil to exchange cations expressed as a sum for all exchangeable cations is fifteen (15) milliequivalents per 100 grams of soil or greater shall be deemed to be acceptable. If the cation exchange capacity is less than fifteen (15), the applicant shall provide information and analyses to allow the Department to assess the soil cation exchange capacity in relation to the potential for migration of contaminants from the proposed facility.

§ 75.444. Mineral Bearing Areas.

(a) *Ownership of Mineral Rights*.

(1) Surface impoundment, landfill and land treatment facilities shall be deemed to be acceptable if the applicant owns the mineral rights within the proposed facility and the area has not been previously mined.

(2) If the applicant does not own all the mineral rights within the proposed facility, the applicant shall determine the ownership of mineral rights conveyed with the property deed to the proposed facility. The applicant must further provide a certification based on a property title search, that ownership of all mineral rights including coal, oil and gas is or will be held by the applicant and that these rights will not be severed from the property as long as hazardous waste remains on the property.

(b) *Surface Subsidence Risk*. If any part of a proposed facility site has been previously mined by deep or surface mining methods the applicant shall provide the results of an engineering study of the proposed site by a competent geotechnical engineer. The study shall allow the Department to assess the probability and degree of surface subsidence and the methods which have been used or are proposed to stabilize the surface. Additionally, the applicant shall provide assurance that any minerals providing support will not be mined as long as hazardous waste remains on the site.

§ 75.445. Land Use.

(a) *New Facilities*. Treatment and disposal facilities located on lands either designated for industrial use by existing municipal zoning or indicated as industrial in officially adopted county or municipal comprehensive plans or land use maps are deemed to be acceptable. If this standard cannot be met, the applicant shall provide information and analyses to allow the Department to assess the compatibility of the design of the proposed facility with zoning or land use controls. Where no zoning exists, the applicant shall provide information and analyses to allow the Department to assess compatibility with existing land use.

(b) *Existing Facilities*. Treatment and disposal facilities located on sites where solid waste or hazardous waste operations (treatment, storage, recovery and disposal) or both are currently being conducted under authority of the Act are deemed to comply with the Land Use criterion.

§ 75.446. Transportation Standards.

(a) *Access.* Treatment and disposal facilities within five (5) miles travel distance of Interstate or limited access highways and served by roads capable of handling anticipated truck traffic or served by a dedicated limited access highway shall be deemed to be acceptable. If this standard cannot be met, the applicant shall provide information and analyses to allow the Department to assess the proximity of the proposed facility to Interstate highways, the effect upon the operation of the proposed facility and the effect of the proposed facility upon the community in the transportation corridor to and from the facility. The applicant shall further provide a plan for highway improvements, if necessary.

(b) *Structures Along Transportation Corridor.* Treatment and disposal facility sites where the transportation corridor between the entrance to a facility and the nearest Interstate or limited access highway is the primary access for less than five (5) residential dwellings per road mile with no schools, community parks or hospitals, are deemed to be acceptable. If these criteria are not met, the applicant shall provide information and analyses to allow the Department to assess the effect the proposed facility will have upon safety and traffic congestion.

(c) *Transportation Restrictions.* Treatment and disposal facility sites are deemed to be acceptable if there are less than four (4) intersections per mile between the entrance to the facility and the nearest Interstate or limited access highway. If there are four (4) or more intersections per mile, the applicant shall provide information and analyses to allow the Department to assess the effect the proposed facility will have upon safety and traffic congestion.

§ 75.447. Safety Services.

Treatment and disposal facilities are deemed to be acceptable if located within an area with adequate safety services. The applicant shall provide information and analyses to allow the Department to assess the adequacy of fire protection, police, ambulance and other necessary safety services available and willing to provide services to the proposed facility. In all cases, the applicant must also comply with the requirements of Sections 264(h) (relating to preparedness and prevention) and 264(i) (relating to contingency plans) of this Chapter.

§ 75.448. Proximity of Facilities and Structures.

Treatment and disposal facility sites are deemed to be acceptable if the distance from the facility to any airport, school, community park, hospital, church, retail center or nursing home, is greater than one mile. If this criterion cannot be met, the applicant shall provide information and analyses to allow the Department to assess the effect the proposed facility will have on the use of these facilities.

§ 75.449. Economic Criteria.

(a) A treatment or disposal facility which does not adversely effect the economy of the host and contiguous municipalities and municipalities contiguous to the transportation corridor to the nearest Interstate or limited access highway is deemed to be acceptable without further assessment. If the facility will result in a net loss of revenues to local jurisdictions, the applicant shall provide information and analyses to allow the Department to assess any compensation needed to offset actual net loss of revenues to local jurisdictions caused by the proposed facility.

(b) If a treatment or disposal facility will result in a net increase in the cost of services provided by local government, the applicant shall provide information and analyses to allow the Department to assess any compensation needed to offset net increases in cost of services.

(c) If a treatment or disposal facility will adversely impact the local economy, the applicant shall provide information and analyses to allow the Department to assess any employment and/or future economic development generated as a result of the location of the facility which may offset any decrease in the local economy.

(d) If a treatment or disposal facility will result in a net increase in cost for monitoring the facility by local government, the applicant shall provide information and analyses to allow the Department to assess the need for compensation for technical assistance which may offset these costs. The applicant shall further assess any provisions for site access by local government.

(e) The applicant shall provide information and analyses to allow the Department to assess any change in market value of property within the local government caused by operation of the treatment or disposal facility and any means by which operation of the proposed facility may offset such change.

§ 75.450. Environmental Assessment Considerations.

(a) The purpose of the following criteria is to assist the Department in evaluating the potential impact of a proposed treatment or disposal facility on natural, scenic, historic and aesthetic values of the environment, in accordance with Article I, Section 27 of the Pennsylvania Constitution. The Department will determine whether significant environmental harm will occur after reviewing the applicant's environmental assessment report submitted in compliance with 25 Pennsylvania Code, Chapter 75 and these regulations and after consulting with the applicant and relevant governmental agencies.

(b) If the Department determines that there is a significant impact on natural, scenic, historic, or aesthetic values of the environment, the Department will consult with the applicant to examine ways to reduce the environmental incursion to a minimum. If, after consideration of mitigation measures, the Department finds that significant environmental harm will occur, the Department will evaluate the social and economic benefits of the proposed facility to determine whether the harm outweighs the benefits. The evaluation of environmental harm must include at a minimum, a consideration of the impact of the proposed facility on the fifteen types of environmental resources described in this subsection at (1) through (15). There may be additional potentially affected natural, scenic, historic or aesthetic values which the Department is constitutionally obligated to protect that will be considered for proposed facilities in some locations. In those instances, the Department will identify those additional potential impacts for the applicant. The following criteria will not be construed as an attempt to limit or restrict the responsibilities of any agency of the Commonwealth under Article I, Section 27 of the Constitution.

(1) If the proposed facility is located within one mile of the corridor of a stream or river designated as a national or State wild, scenic, recreational, pastoral or modified recreation river in accordance with the National Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. §§1271—1287), or the Pennsylvania Scenic Rivers Act, the Act of December 5, 1972 (P.L. 1277, No. 283) (32 P.S. §§820.21—820.29), the applicant shall provide information and analyses to allow the Department to determine whether the proposed facility conforms to the designating statutes, land management guidelines and studies or plans for the corridor.

(2) If the proposed facility is located within one mile of the nearest bank of a stream or river listed as a 1-A priority for study by the Department as a state wild, scenic, recreational, pastoral or modified recreational river; or mandated by the United States Congress for study or determined by the United States Park Service to meet the criteria for study for potential inclusion into the National Wild and Scenic Rivers System, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse environmental, visual or traffic impacts on the river or stream.

(3) If the proposed facility is located within one mile of a unit of the National Parks System; a state, county, or municipal park; a recreational facility operated by the United States Army Corps of Engineers; a state forest picnic area; or the Allegheny River Reservoir in the Allegheny National Forest; the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse environmental, visual or traffic impacts on the park or other recreation areas listed in this subsection.

(4) If the facility is located within one mile of the footpath of the Appalachian Trail or other state designated trail, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse environmental, visual or traffic impacts on the Appalachian Trail or other state designated trail.

(5) If the facility is located within one mile of a National Natural Landmark designated by the United States National Park Service; or a natural area or wild area designated by the Environmental Quality Board, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse environmental, visual or traffic impacts on the National Landmark, natural area or wild area.

(6) If the facility is located within one mile of or within an identified potential impact area of a national wildlife refuge, national fish hatchery, or national environment center operated by the United States Fish and Wildlife Service, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse environmental, visual or traffic impacts on the wildlife reserve, fish hatchery, or environment center.

(7) If the facility is located within one mile of a historic property owned by the Pennsylvania Historical and Museum Commission, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse environmental, visual or traffic impacts on the historic property.

(8) If the facility is located within one mile of a historic site listed in the National Register of Historic Places, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse impacts on such historic sites.

(9) If the facility is located within one-quarter mile of a historic site listed in the Pennsylvania Inventory of Historic Places or an archaeological site listed in the Pennsylvania Archaeological Site Survey, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse impacts on the historical or archaeological site.

(10) If the facility is located within one mile of the boundary of a state forest or state game land or the proclamation boundary of the Allegheny National Forest, the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse impacts on the forest, game land or resources.

(11) If the facility is located within an area which is a habitat of a rare, threatened, or endangered species of plant or animal protected by the Federal Endangered Species Act of 1973 (17 U.S.C.A. §136 and §16 U.S.C.A. §§460K-1, 4601-9, 668 dd, 715i; 715s, 1362, 1371, 1372, 1402, 1531—1543), the Wild Resource Conservation Act, Act of June 23, 1982 (P.L. 597, No. 170) (32 P.S. §§5301—5314), or recognized by the Pennsylvania Fish Commission or Pennsylvania Game Commission; the applicant shall provide information and analyses to allow the Department to assess the extent to which the proposed facility may create adverse impacts on the species or habitat and any mitigation measures the applicant has proposed to deal with any adverse impacts.

(12) If the facility will result in an increase in the peak discharge rate of storm-water drainage from the project site, the applicant shall demonstrate that the proposed facility is in conformance with any official stormwater management plan required by the Storm Water Management Act (32 P.S. §680.1 *et seq.*), and the proposed facility will manage the run-off in a manner that otherwise adequately protects health and property from injury.

(13) If a facility is proposed to be located in a watershed for which a formal written request for designation as Exceptional Value Waters has been received by the Department or the Environmental Quality Board, the applicant shall provide information and analyses to allow the Department to assess the impact of the proposed facility on the pending designation.

(14) If the facility generates a wastewater discharge which could degrade waters designated as High Quality Waters under Chapter 93 (relating to Water Quality Standards) or waters for which a formal written request for designation as High Quality Waters has been received by the Department or the Environmental Quality Board, the applicant shall demonstrate:

(i) the discharge is justified as a result of necessary economic or social development which is of significant public value; and

(ii) the discharges, alone or in combination with any other anticipated discharges of pollutants to such waters, will not preclude any use presently possible in such waters and downstream from such waters, and will not result in a violation of any of the numerical water quality criteria specified in § 93.9 (relating to designated water uses and water quality criteria) which are applicable to the receiving waters.

(15) If a proposed facility is to be located on prime or unique agricultural land as defined by the Soil Conservation Service, lands currently in agricultural use, or lands of statewide importance as designated by the Soil Conservation Service, the applicant shall provide information and analyses to allow the Department's to assess the proposed facility's consistency with Commonwealth policy such as Executive Order 1982-3 regarding agricultural lands.

**PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT**

HAZARDOUS WASTE PERMIT APPLICATION - PART A

GENERAL INFORMATION

NUMBER OF COPIES

Six (6) copies of the Part A permit application and all attachments must be submitted to the Department.

COMPLETION OF FORMS

Unless otherwise specified in instructions to the forms, each item must be answered. To indicate that each item has been considered, enter "NA," for not applicable, if a particular item does not fit the circumstances or characteristics of your facility or activity.

If you have previously submitted information to DER or to EPA which answers a question, you may either repeat the information in the space provided or attach a copy of the previous submission. Some items in the form require narrative explanation. If more space is necessary to answer a question, attach a separate sheet entitled "Additional Information."

CONFIDENTIAL INFORMATION

All information submitted in this form will be subject to public disclosure, to the extent provided by Section 502(c) of Act 97, The Solid Waste Management Act of 1980. Persons filing this form may make claims of confidentiality. Such claims must be clearly indicated by marking "confidential" on the specific information on the form for which confidential treatment is requested or on any attachments, and must be accompanied, at the time of filing, by a written substantiation of the claim, by answering the following questions:

CONFIDENTIAL INFORMATION (continued)

- A. Which portions of the information do you claim are entitled to confidential treatment?
- B. For how long is confidential treatment desired for this information?
- C. What measures have you taken to guard against undesired disclosure of the information to others?
- D. To what extent has the information been disclosed to others, and what precautions have been taken in connection with that disclosure?
- E. Has EPA or any other Federal agency made a pertinent confidentiality determination? If so, include a copy of such determination or reference to it, if available.
- F. Will disclosure of the information be likely to result in substantial harmful effects to your competitive position? If so, what would those harmful effects be and why should they be viewed as substantial? Explain the causal relationship between disclosure and the harmful effects.

If no claim of confidentiality or no substantiation accompanies the information when it is submitted, DER may make the information available to the public without further notice to the applicant.

LINE BY LINE INSTRUCTIONS

SECTION I

Space is provided at the upper left hand corner of page 1 for insertion of your EPA Identification Number. If you have an existing facility, enter your Identification Number. If you don't know your EPA Identification Number, please contact EPA at 215-597-8751.

SECTION II

Enter the facility's official or legal name. Do not use a colloquial name.

SECTION III

Give the name, title, and work telephone number of a person who is thoroughly familiar with the facts reported in this application and who can be contacted by the person reviewing this application if necessary.

SECTION IV

Give the complete mailing address of the office where correspondence should be sent. This may or may not be the address used to designate the location of the facility.

SECTION V

Give the location of the facility identified in Section IV of this form. If the facility lacks a street name or route number, give the most accurate alternative geographic information (e.g., at intersection of Rts. 425 and 22). Include the name of municipality (e.g., township, boro, city, etc.) and the county.

SECTION VI

List, in descending order of significance, the four 4-digit standard industrial classification (SIC) codes which best describe your facility in terms of principal products or services you produce or provide. Also, specify classification in words. These classifications may differ from the SIC codes describing the operation generating the hazardous wastes.

SIC code numbers are descriptions which may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, which is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual.

SECTION VII-A

Give the name, as it is legally referred to, of the person, firm, public organization, or any other entity which operates the facility described in this application. This may or may not be the same name as the facility. The operator of the facility is the legal entity which controls the facility's operation rather than the plant or site manager. Do not use a colloquial name.

SECTION VII-B

Indicate whether the entity which operates the facility also owns it by marking the appropriate box.

SECTION VII-C THRU F

Enter the telephone number and address of the operator identified in Section VII-A.

SECTION VII-H

Enter the appropriate letter to indicate the legal status of the operator of the facility. Indicate "public" for a facility solely owned by local government(s) such as a city, town, county, etc.

SECTION VIII

Give the number of each currently effective Federal or State permit issued to the facility for each program or, if you have previously filed an application but have not yet received a permit, give the number of the application, if any. Fill in the unshaded area only. If you have more than one currently effective permit for your facility under a particular permit program, you may list additional permit numbers on a separate sheet of paper.

SECTION IX

Provide a topographic map or maps of the area extending at least to one mile beyond the property boundaries of the facility which clearly show the following:

The legal boundaries of the facility;

The location and serial number of each of your existing and proposed intake and discharge structures;

All hazardous waste management facilities;

Each well where you inject fluids underground; and

All springs, surface water bodies, and any wells within 1/4 mile of the facility.

If an intake or discharge structure, hazardous waste disposal site, or injection well associated with the facility is located more than one mile from the plant, include it on the map, if possible. If not, provide an additional map on which the structure, site, or well has been plotted.

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude at the nearest whole second. On all maps of streams, show the direction of the current, and in tidal waters, show the directions of the ebb and flow tides. Use a 7-1/2 minute series map published by the U.S. Geological Survey, which may be obtained from:

Eastern Mapping Center
National Cartographic Information Center
U.S.G.S.
536 National Center
Reston, Va. 22092
Phone No. (703) 860-6336

SECTION X

Briefly describe the nature of your business (*e.g., products produced or services provided*).

SECTION XI-A

FIRST APPLICATION. If this is the first application that is being filed for the facility place an "X" in either the Existing Facility box or the New Facility box.

SECTION XI-B

REVISED APPLICATION. If this is a subsequent application that is being filed to amend data filed in a previous application, place an "X" in the appropriate box to indicate whether the facility has interim status or a permit.

(NOTE: When submitting a revised application, applicants must resubmit in their entirety each item on the application for which changes are requested. It is not necessary to resubmit information for other items that will not change.)

SECTION XII

The information in Section XII describes all the processes that will be used to treat, store, or dispose of hazardous waste at the facility. The design capacity of each process must be provided as part of the description. The design capacity of injection wells and landfills at existing facilities should be measured as the remaining, unused capacity. See the form for the detailed instructions.

SECTION XIII

The information in Section XIII describes all the hazardous waste that will be treated, stored, or disposed at the facility. In addition, the processes that will be used to treat, store, or dispose of each waste and the estimated annual quantity of each waste must be provided. See the form for the detailed instructions.

SECTION XIV

All existing facilities must include a drawing showing the general layout of the facility. This drawing must be approximately to scale and fit in the space provided on the form. This drawing must show the following:

The property boundaries of the facility;

The areas occupied by all storage, treatment, or disposal operations that will be used during interim status;

The name of each operation. (*Example — multiple hearth incinerator, drum storage area, etc.*);

Areas of past storage, treatment, or disposal operations;

Areas of future storage, treatment, or disposal operations; and

The approximate dimensions of the property boundaries and all storage, treatment, and disposal areas.

New facilities do not have to complete this item.

SECTION XV

All existing facilities must include photographs that clearly delineate all existing structures; all existing areas for storing, treating, or disposing of hazardous waste; and all known sites of future storage, treatment, or disposal operations. Photographs may be color or black and white, ground-level or aerial. Indicate the date the photograph was taken on the back of each photograph.

SECTION XVI

Enter the latitude and longitude of the facility in degrees, minutes, and seconds. For larger facilities, enter the latitude and longitude at the approximate mid-point of the facility.

SECTION XVII

See the form for the instructions to Section XVII.

SECTIONS XVIII AND XIX

All facility owners must sign Section XVIII. If the facility will be operated by someone other than the owner, then the operator must sign Section XIX. The certification must be signed as follows:

A. For a corporation, by a principal executive officer at least the level of vice president;

B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

C. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT

HAZARDOUS WASTE PERMIT APPLICATION - PART A

Please print or type in the unshaded areas only

I. I.D. NUMBER											
II. NAME OF FACILITY											
III. FACILITY CONTACT											
A. NAME & TITLE (last, first, & title)						B. PHONE (area code & no.)					
IV. FACILITY MAILING ADDRESS											
A. STREET OR P.O. BOX											
B. CITY OR TOWN								C. State		D. Zip Code	
V. FACILITY LOCATION											
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER						E. MUNICIPALITY					
B. CITY OR TOWN				C. State		D. Zip Code		F. COUNTY			
VI. SIC CODES (4-digit, in order of priority)											
A. FIRST				C. THIRD							
(specify)				(specify)							
B. SECOND				D. FOURTH							
(specify)				(specify)							
VII. OPERATOR INFORMATION											
A. NAME								B. Is the name listed in Item VII-A also the owner?			
								☐ YES ☐ NO			
C. STREET OR P.O. BOX											
D. CITY OR TOWN						E. State		F. Zip Code		G. PHONE (area code & no.)	
H. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)											
F - FEDERAL		M - PUBLIC (other than federal or state)		☐ (specify)							
S - STATE		O - OTHER (specify)									
P - PRIVATE											
VIII. EXISTING ENVIRONMENTAL PROGRAM PERMITS											
A. NPDES (Discharges to Surface Water)				D. PSD (Air Emissions from Proposed Sources)							
C. UIC (Underground Injection of Fluids)				E. SOLID WASTE							
F. RCRA (Hazardous Wastes)				F. OTHER (specify)							

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and any well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area as per the instructions.

X. NATURE OF BUSINESS *(provide a brief description)*

XI. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Section 1.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

1. EXISTING FACILITY

☐ 2. NEW FACILITY (Complete item below.)

YR.	MO.	DAY	FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo. & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

YR.		MO.		DAY	

B. REVISED APPLICATION: (place an "X" below and complete Section 1)

☐ 1. FACILITY HAS INTERIM STATUS

☐ 2. FACILITY HAS A RCRA PERMIT

XII. PROCESSES – CODES AND DESIGN CAPACITIES

A. **PROCESS CODE** — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (*including its design capacity*) in the space provided on the form (Item XII-C).

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.

1. **AMOUNT** — Enter the amount.

2. **UNIT OF MEASURE** — For each amount entered in column 8(f), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below may be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
STORAGE:			TREATMENT:		
Container (barrel, drum, etc.)	S01	Gallons or Liters	Tank	T01	Gallons Per Day or Liters Per Day
Tank	S02	Gallons or Liters			
Waste Pile	S03	Cubic Yards or Cubic Meters	Surface Impoundment	T02	Gallons Per Day or Liters Per Day
Surface Impoundment	S04	Gallons or Liters			
DISPOSAL:			Incinerator	T03	Tons Per Hour or Metric Tons Per Hour; Gallons Per Hour or Liters Per Hour
Injection Well	D79	Gallons or Liters			
Landfill	D80	<i>Acres-Feet (the volume that would cover one acre to a depth of one foot) or Hectare-Meter</i>	Other (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments, or incinerators. Describe the processes in the space provided (Item XII-C.)	T04	Gallons Per Day or Liters Per Day
Land Application	D81	Acres or Hectares			
Ocean Disposal	D82	Gallons Per Day or Liters Per Day			
Surface Impoundment	D83	Gallons or Liters			
UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G	Liters Per Day	V	Acres-Feet	A
Liters	L	Tons Per Hour	D	Hectare-Meter	F
Cubic Yards	Y	Metric Tons Per Hour	W	Acres	B
Cubic Meters	C	Gallons Per Hour	E	Hectares	Q
Gallons Per Day	U	Liters Per Hour			

EXAMPLE

FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

A. PROCESS CODE (from list above)				B. PROCESS DESIGN CAPACITY								FOR OFFICIAL USE ONLY				A. PROCESS CODE (from list above)				B. PROCESS DESIGN CAPACITY								FOR OFFICIAL USE ONLY			
				1. AMOUNT (specify)				2. UNIT OF MEASURE (enter code)												1. AMOUNT				2. UNIT OF MEASURE (enter code)							
X-1	S	0	2	600				G						5																	
X-2	T	0	3	20				E						6																	
1														7																	
2														8																	
3														9																	
4														10																	

XII. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

XIII. DESCRIPTION OF HAZARDOUS WASTES

- A. **HAZARDOUS WASTE NUMBER** — Enter the four-digit number from 75.261(h) for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 75.261(h), enter the four-digit number(s) from 75.261(g) that describes the characteristics and/or the EP toxic contaminants of those hazardous wastes.
- B. **ESTIMATED ANNUAL QUANTITY** — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or EP toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. **UNIT OF MEASURE** — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Section XII to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or EP toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Section XII to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess the characteristic or toxic contaminant.

Notes: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of item XIII-D(1); and (3) Enter in the space provided on page 5, the line number and the additional code(s).

2. **PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one Hazardous Waste Number shall be described on the form as follows:

- Select one of the Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.
- Repeat step 2 for each other Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING SECTION XIII (Shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of leaded tank bottoms from the petroleum refining industry. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES									
	1. PROCESS CODES (enter)						2. PROCESS DESCRIPTION (If a code is not entered in D(1))									
X-1	K	0	5	2	900	P	T	0	3	D	8	0				
X-2	D	0	0	2	400	P	T	0	3	D	8	0				
X-3	D	0	0	1	100	P	T	0	3	D	8	0				
X-4	D	0	0	2												"Included with above"

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

XIII. DESCRIPTION OF HAZARDOUS WASTES (continued)													
Waste No. (enter code)	A. Hazard. Waste No. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEAS- URE (enter code)	D. PROCESSES									
				1. PROCESS CODES (enter)					2. PROCESS DESCRIPTION (if a code is not entered in D(1))				
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													

XIII. DESCRIPTION OF HAZARDOUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM G(1) ON PAGE 4.

XIV. FACILITY DRAWING

All existing facilities must include in the space provided on page 6 a scale drawing of the facility (see instructions for more detail).

XV. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures, existing storage, treatment, and disposal areas, and sites of future storage, treatment, or disposal areas (see instructions for more detail).

XVI. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

XVII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VII, place an "X" in the box to the left and skip to Section XVIII below.

B. If the facility owner is not the facility operator as listed in Section VII, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code & no.)

3. STREET OR P.O. BOX

4. CITY OR TOWN

5. ST.

6. ZIP CODE

XVIII. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

C. DATE SIGNED

XIX. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

C. DATE SIGNED

Commonwealth of Pennsylvania
Department of Environmental Resources
Bureau of Solid Waste Management

APPLICANT GUIDELINES
FOR MODULE NO. 9
GENERAL ENVIRONMENTAL, SOCIAL, AND ECONOMIC
INFORMATION

The following information is to supplement that provided on Module No. 9. Included is a fuller discussion of the Environmental Assessment Process, definition of some terms which may need further clarification in the Module, and references to information sources for the applicant to use in completing the Module.

The Environmental Assessment Process is a systematic review of broad environmental impacts which the Department gives to permit applications for major solid waste and hazardous waste facilities. The Environmental Assessment Process (EAP) is intended to insure that the natural, scenic, historic, and aesthetic values of the environment are protected in accordance with Article I, Section 27, of the Pennsylvania Constitution, known as the Environmental Rights Amendment, which states:

"The people have a right to clear air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all people."

The Pennsylvania courts have set forth three tests to determine whether an agency's actions are in compliance with Article I, Section 27:*

- (1) Was there compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources?
- (2) Does the record demonstrate a reasonable effort to reduce the environmental incursion to a minimum?
- (3) Does the environmental harm which will result from the challenged decision or action so clearly outweigh the benefits to be derived there from that to proceed further would be an abuse of discretion?

The Environmental Assessment Process will meet these tests as follows. First, the Department will continue to assure compliance with all applicable statutes and regulations relevant to the protection of the environment, through its permit coordination efforts.

Second, simultaneously with the technical permit review, the Department will review proposed projects to determine whether there may be an impact on significant environmental values. The applicant must submit Module No. 9 at the time he submits the other Phase I permit application components, to provide the Department with basic information about the potential impact of the project on specific environmental values. A positive response to a particular question will not necessarily indicate significant environmental harm nor result in the denial of a permit. The actual determination of whether the

potential for significant environmental harm exists will be made by the Department after consultation with the applicant and other concerned governmental agencies. If the Department determines that there may be a significant impact on natural, scenic, historic or aesthetic values of the environment, the Department will consult with the applicant to examine ways to reduce the environmental harm to a minimum.

If, after consideration of mitigation measures, the Department finds that significant environmental harm will occur, the Department, as a third step, will evaluate the public social and economic benefits of the project to determine whether the harm outweighs the benefits. If there is no significant environmental harm or if there is sufficient justification for the project, the project will be approved, assuming all technical requirements are met. If the public benefits do not justify a facility which will create significant environmental harm, the Department will deny the permit.

The Environmental Assessment Process is designed to identify potential significant environmental harm at an early stage in a project's development. This will allow both the applicant and the Department to deal with potential problems in a project's early stages during site selection and project design, so costly changes and delays can be avoided or reduced.

Permits issued by the Bureau of Solid Waste Management for the following projects are subject to the Environmental Assessment Process:

- 1) Municipal Waste Landfills including:
 - a) new landfills;
 - b) an expansion, enlargement or alteration of the facility beyond the original design capacity or beyond the area specified in the permit obtained from the Department;
 - c) existing landfills where the permit is to be revised, modified or re-issued to reflect the application of technology which is significantly different than that previously permitted by the Department.
- 2) Municipal waste (Class V) incinerators.
- 3) Residual waste landfills and expansions thereof.
- 4) Non-captive hazardous waste treatment and disposal facilities.
- 5) Captive hazardous waste treatment and disposal facilities which are not located at the facility where the waste is generated.
- 6) Other individual permit applications at the discretion of the Bureau of Solid Waste Management when a particular project appears to have a significant effect on environmental values.

NOTE: Construction and demolition waste landfills, agricultural utilization of sewage sludge, commercial waste incinerators and hospital incinerators are not included.

*From *Payne v. Kassab*, 11 Pa. Cmwlth. 14, 29-30, 312 A.2d 86, 94 (1973), *aff'd* 468 Pa. 226, 361 A.2d 263 (1976).

All permit applicants whose project is subject to the Environmental Assessment Process, must complete Part A of the Module No. 9, General Environmental, Social and Economic Information Module. If the applicant determines that there may be significant environmental harm, he should complete Part B of the Module. If the applicant does not identify significant environmental harm, he is not required to submit answers to Part B of the module, but he may be required to do so by the Department at a later date, if the Department determines that there will be significant environmental harm.

Applicants must submit Module No. 9 with their Phase I submission and with the same number of duplicates as required for solid waste permit submissions.

The individual completing Module No. 9 should be identified by name, organization and official position.

An EAP Guidance and Information Manual has been prepared by the Department to assist both applicants and DER staff make the assessment required in the Environmental Assessment Process. Each DER regional environmental protection office contains an EAP Guidance and Information Manual. Most of the information necessary to answer the questions in the module are contained in the EAP Guidance and Information Manual. We strongly suggest that applicants contact the DER regional office nearest them, to make use of the EAP Guidance and Information Manual in completing Module No. 9.

The points below are keyed by number to the specific questions in Module No. 9. This information is intended to provide further definition or clarification of some key terms. Except where otherwise indicated below, the applicant should consult the EAP Guidance and Information Manual at a DER regional environmental protection office.

Part A.

1 & 2: Question #1 is concerned with the corridors of streams that have been designated by the U.S. Congress or the Commonwealth of Pennsylvania to be included in the National Wild and Scenic Rivers System or the Pennsylvania Scenic Rivers System. There are Management Guidelines established for each of these designated corridors. Question #2 deals with those streams and rivers that have been designated for study by the U.S. Congress, or the Heritage Conservation and Recreation Service or by the Department of Environmental Resources as a 1-A priority for study for inclusion into one of these systems. Study streams and 1-A priority streams possess outstanding characteristics which indicate potential for inclusion into the Scenic Rivers System. These streams deserve special consideration to protect their outstanding characteristics.

3: Question #3 refers to a "unit of the National Park System." This terminology includes all of the resource areas managed by the National Park Service of the U.S. Department of the Interior. These "units" include the following:

- National Parks
- National Recreation Areas
- National Battlefield Sites
- National Cemeteries
- National Historic Parks
- National Monuments and Historic Shrines
- National Historic Sites (does not include all sites in the National Register of Historic Places)
- National Military Parks
- Appalachian Trail (covered in Question #4)

2 thru 7: Visual and Traffic Analyses are required if the proposed project is located within one mile of the specified resource. See Appendix I and II.

5: In Question #5 the term "natural area or wild area designated by the Pennsylvania Environmental Quality Board" (EQB) refers to areas within state forests identified and studied by the Bureau of Forestry. These areas, after detailed analysis, have been determined to be of significant scenic, historic, geologic or ecological value. They are subject to specific management guidelines approved by the Environmental Quality Board.

6: A "potential impact area" has been identified by the U.S. Fish and Wildlife Service for two of its facilities in Pennsylvania. The facilities are the Lamar National Fish Hatchery in Clinton County with a potential impact area including a portion of Centre County and the Erie National Wildlife Refuge in Crawford County. These "potential impact areas" are shown in the EAP Guidance and Information Manual in the DER regional office covering the area. If a project might impact a facility of the Fish and Wildlife Service, the applicant should contact:

Mr. Norman Chupp, Area Manager
U.S. Department of the Interior
U.S. Fish and Wildlife Service
100 Chestnut Street
Room 310
Harrisburg, Pennsylvania 17101

7: It should be noted that historic properties owned by the Pennsylvania Historical and Museum Commission referred to in Question #7 and the types of historic sites referred to in Question #8 are somewhat different. The properties owned by the Historical and Museum Commission are maintained for the public benefit and enjoyment by the Commission. Sites referred to in Question are generally privately owned, or owned by county or municipal historical societies or other public or semi-public organizations other than the Pennsylvania Historical and Museum Commission.

8: Because the list of sites on the National Register of Historic Places, the Pennsylvania Inventory of Historic Places and the Pennsylvania Archeological Site Survey are frequently added to, the applicant is encouraged to contact the Pennsylvania Historical and Museum Commission before submitting an application to the Department to determine whether or not a proposed project is located near one of these sites.

This service is available from:

Planning and Protection Division
Office of Historic Preservation
PA Historical and Museum Commission
523 William Penn Memorial Museum
Harrisburg, Pennsylvania 17120

- 9: Question #9 deals in part with the Allegheny National Forest. Specifically, the applicant is asked to indicate whether or not a proposed project will be located within ¼ mile of the proclamation boundary of the Allegheny National Forest. The "proclamation boundary" delineates the area in which the U.S. Forest Service is authorized by the U.S. Congress and the Commonwealth to purchase land for inclusion in the National Forest System. This area includes lands already owned by the federal government and managed by the U.S. Forest Service. It also includes private lands.

A map showing the proclamation boundary of the Allegheny National Forest is contained in the EAP Guidance and Information Manual.

- 10: Rare and endangered species are protected in Pennsylvania by three agencies. Since maps of the range and habitats of these species are usually not available, the applicant is encouraged to contact each agency before submitting an application to the Department.

If the project might impact the Indiana bat (range and habitat information available in the EAP Guidance and Information Manual), the applicant should contact:

Mr. Norman Chupp, Area Manager
U.S. Department of the Interior
U.S. Fish and Wildlife Service
100 Chestnut Street
Room 310
Harrisburg, Pennsylvania 17101

The Pennsylvania Fish Commission will review applications for impact on endangered species of fish, reptiles, and amphibians. The applicant should send a brief description of the project and a 7½ minute quadrangle map showing the location of the project to:

Rare and Endangered Species Coordinator
Pennsylvania Fish Commission
Robinson Lane
Bellefonte, Pennsylvania 16823

The Pennsylvania Game Commission will review applications for their impact on rare and endangered species of birds and mammals. The applicant should send a brief description of the project and a 7½ minute quadrangle map showing project location to:

Pennsylvania Game Commission
8000 Derry Street (Rutherford)
P.O. Box 1567
Harrisburg, Pennsylvania 17120

- 11: Soils are identified by type and capability in the U.S. Soil Conservation Service Soil Surveys for each county. Soil capability classes I and II comprise the types of soils which are the highest yielding soils when used as cropland.

Many counties have published soil surveys available to the public; most counties have interim studies which can be used in the county office of the U.S. Soil Conservation Service. The applicant is encouraged to consult with the U.S. Soil Conservation Service office serving the county in which the project will be located.

- 12: Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

- 13: Special Protection Watersheds are designated in Chapter 93 of the Rules and Regulations of the Pennsylvania Department of Environmental Resources. They include High Quality (HQ) Waters and Exceptional Value (EV) Waters. These are defined as follows:

HQ Waters:

A stream or watershed which has excellent quality waters and environmental or other features that require special water quality protection.

EV Waters:

A stream or watershed which constitutes an outstanding national, state, regional or local resource, such as waters of national, state or county parks or forests, or waters which are used as a source of unfiltered potable water supply, or waters of wildlife refuges or state game lands, or waters which have been characterized by the Fish Commission as "Wilderness Trout Streams," and other waters of substantial recreational or ecological significance.

- 14: The applicant should contact local water supply companies and/or the Bureau of Resources Programming to determine if the project will impact on a public water supply facility. The Bureau can be contacted at the following address:

Bureau of Resources Programming
Office of Resources Management
Department of Environmental Resources
Evangelical Press Building
Harrisburg, Pennsylvania
(717) 787-6750

- 15: The applicant is encouraged to contact the municipality in which the project will be located, to consult the flood insurance rate maps prepared by the Federal Emergency Management Administration. These maps are only available from the municipality. If the flood insurance study has not been completed, municipalities may have an "early release" of map information.

If a federal flood insurance study is not underway for the municipality, the applicant may contact the county office of the U.S. Soil Conservation Service for information about the location of alluvial (flood prone) soil areas, or the municipality for information about other flood-plain information studies.

- 16: Applicants must submit documentation to assure that the maximum rate of stormwater runoff will be no greater after development than prior to development activities; or a proposal to manage the quantity, velocity, and direction of resulting storm water runoff in a manner which adequately protects health and property from possible injury.

Applicants should discuss the method for calculating peak runoff rates including basic assumptions and parameters. Calculation methods may include the rational method or the soil cover complex method. Peak rates of runoff for 2, 10, and 100 year storm events shall be calculated for the pre-operation condition, conditions during operation, and post-operation conditions. Runoff calculations are to be based on average antecedent moisture conditions and pre-operation soil cover conditions will be the site as it exists at the time of development.

If the calculations indicate a significant increase in the peak rates of surface runoff for any of the calculated conditions or a concentration of drainage into another property, the applicant must demonstrate -

- A. measures to be taken to reduce the peak rates of runoff to pre-operation conditions;
- B. measures to be taken to manage the quantity, velocity and direction of resulting storm water runoff in a manner which adequately protects health and property from possible injury.
- C. information to show that there will be no adverse affects on a Special Protection Watershed, public water supply or downstream flooding.

- 18: See Guideline for Traffic Analysis, Appendix II.

Part 3: Responses to these questions will be based on the applicants knowledge of the project area. Further guidance is available in the EAP Guidance and Information Manual.

Appendix I
GUIDELINES FOR VISUAL ANALYSIS

Questions 2 through 7 direct that a visual analysis be done according to specific guidelines. The purpose of the visual analysis for these questions is to ensure that potential visual impacts on areas of high intensity recreational use or special natural or wilderness values are considered. These areas are referred to below as "environmental resource areas."

Part A below describes a procedure for analyzing the extent to which the project site can be seen from various identified environmental resource areas.

Part B is a questionnaire which must be completed using the visual analysis. This questionnaire will provide a summary of the visual characteristics of the site, and the potential visual impact of the proposed project on the identified environmental resource areas.

PART A - Visual Analysis Procedure

- 1) Identify the boundaries of the project site on a U.S.G.S. 7.5 minute topographic quadrangle map.
- 2) On the same map plot the boundaries of any of the following areas which are within one mile of the project site.
 - a) A stream or river listed as a 1-A priority for study by the Pennsylvania Department of Environmental Resources as a state wild, scenic, recreational, or modified recreational river.
 - b) A stream or river mandated by the U.S. Congress for study or determined by the U.S. Heritage Conservation and Recreation Service to meet the criteria for study for potential inclusion into the National Wild and Scenic Rivers System.
 - c) A unit of the National Parks System.
 - d) A state park.
 - e) A county park.
 - f) A municipal park.
 - g) A recreation facility operated by the U.S. Army Corps of Engineers.
 - h) A state forest picnic area.
 - i) The Allegheny River Reservoir in the Allegheny National Forest.
 - j) The footpath of the Appalachian Trail.
 - k) A national natural landmark designated by the U.S. National Park Service.
 - l) A natural area or wild area designated by the Pennsylvania Environmental Quality Board.
 - m) A national wildlife refuge, national fish hatchery, or national environmental center operated by the U.S. Fish and Wildlife Service.
 - n) An historic property owned by the Pennsylvania Historic and Museum Commission.

- 3) Also plot on the topographic maps the boundaries of any of the identified environmental resources areas that are further than one mile from the proposed project but from which there is a clear, unobstructed view of any part of the project site.
- 4) Draw lines on the map from the project site to each of the environmental resource areas identified on the map. Select the endpoints of each line as follows:

- a) For the environmental resource area, select the most prominent topographic feature and/or the location of highest intensity recreational use from which the project site can be seen.

Examples of prominent topographic features include:

mountain	ridge	crag
hill	cliff	rock
knoll	escarpment	

Examples of high intensity recreational use include:

trail	picnic area	stream
vista point	campground	lake

- b) For the project site, select the point most visible from the environmental resource area, or the center of the site if the entire site is visible.

Number each line drawn on the map. These lines are referred to below as "lines-of-sight."

- 5) For each line-of-sight drawn on the map, construct a topographic profile as follows.
 - a) The environmental resource area should be at the left end of the profile and the project site on the right end of the profile.
 - b) Plot the topographic profile of each "line-of-sight" showing all changes in slope, and prominent topographic, vegetative and, cultural features. Use a vertical scale of 1" = 100' and a horizontal scale of 1" = 1000'.
 - c) Show the locations of both the environmental resource area boundaries and the project site boundaries on the profile.
 - d) Indicate the approximate location and height of vegetative cover along the "line-of-sight", i.e. the profile.
- 6) For each line-of-sight for which there is a clear and unobstructed view or a partially obstructed view of the project site from the environmental resource area, photograph the project site from the environmental resource area as follows:
 - a) The photograph should be black and white, 8 x 10", and taken in daylight in any season.
 - b) The photograph should be taken with the photographer standing approximately on the mapped endpoint of the line-of-sight at the environmental resource area, and with the mapped endpoint at the project site approximately in the center of the photograph.
 - c) Draw the approximate boundary of the project site on the photograph.
- 7) Complete the Visual Analysis Results Form in PART B below.

PART B. VISUAL ANALYSIS RESULTS FORM

(Attach with map, topographic profiles, and photographs to Module 9)

1. The topography of the general area of the project site is (check one):

a) Flat _____
 b) Rolling gentle hills _____
 c) Ridge and valley _____
 d) Steep mountains _____

2. The project site is located (check one) on a:

a) Flat area _____
 b) Valley bottom _____
 c) Hill side _____
 d) Hill top _____

3. The view of the project site from each of the identified resource areas is (check one for each mapped area numbered line of sight; it may be necessary to draw topographic profiles to make this determination):

	#1	#2	#3	#4
a) Clear and unobstructed	_____	_____	_____	_____
b) Partially obstructed by trees or other features	_____	_____	_____	_____
c) Completely obstructed	_____	_____	_____	_____

4. The view of the project site and surrounding areas from the identified resource areas can be best described as (check as many as apply for each mapped and numbered line of sight):

	#1	#2	#3	#4
a) Very scenic	_____	_____	_____	_____
b) Primarily natural	_____	_____	_____	_____
c) Primarily urban or developed	_____	_____	_____	_____
d) Primarily agricultural	_____	_____	_____	_____
e) Disturbed by excessive or unattractive natural occurrences or human activities.	_____	_____	_____	_____
(Specify) _____	_____	_____	_____	_____

5. Unique or special scenic qualities which exist on the project site and surrounding areas include: _____

6. Visual intrusions which already exist in the project site and surrounding areas include: _____

7. The project will cause the following changes in the landscape character of the area. _____

8. The project will require the following changes in the existing topography and vegetation of the site during construction and operation, and after completion. _____

Appendix II
GUIDELINES FOR TRAFFIC ANALYSIS

An analysis of traffic impacts is required as a part of Questions 2 through 7, and also in Question 18.

The purpose of the traffic analysis for Questions 2 through 7 is to ensure that potential impacts from motor vehicle traffic on areas of high intensity recreational use or special natural or wilderness value are considered.

The purpose of the traffic analysis for Question 18 is to determine whether there may be excessive conflicts with existing vehicular traffic, or potential traffic safety problems.

The approach route to the project site should be indicated on the 7½ minute topographic map. Information on design capacities, roadway width and condition, average daily traffic counts for state routes are available in the regional engineering offices of the Pennsylvania Department of Transportation. For non-state highways, much of this information is available from the county or local government responsible for the roadway. Expected increases in traffic as a result of the facility should be estimated based upon the kind of facility, its capacities, and the kind of vehicles expected to use the facility.

For Question 18, the identification of the numbers of residences and schools, hospitals and nursing homes along the approach route should be done through a windshield survey of the approach route. Where a new driveway opening is required upon a state route, applicants are encouraged to contact the Pennsylvania Department of Transportation to discuss the necessary driveway access permit prior to submitting their application to the Department.

NOTE: Approach route(s) are public roads providing access to the project site, upon which the expected increased traffic will be concentrated, extending from the project site up to and including an intersection where the expected increased traffic will disperse onto several roads or move onto a major arterial highway.

COMPLIANCE HISTORY — MODULE NO. 10

COMPLETION OF THIS MODULE IS REQUIRED AS A PART OF THE APPLICATION FOR ANY TYPE OF SOLID WASTE MANAGEMENT PERMIT OR LICENSE

Purpose and Applicability:

1. The purpose of this application module is to assess the applicant's history of compliance with laws, regulations and standards relating to environmental protection in conformance with Sections 503(c) and (d) of the Pennsylvania Solid Waste Management Act. Failure to provide valid information required may result in the denial, suspension or revocation of your permit or license as well as the imposition of civil and criminal sanctions.
2. Completion of this module is required in order for the Department to process and review the application and/or permit or license pursuant to the Solid Waste Management Act.
3. This module may also be required as part of a facility's annual report, or when a permit or license is to be amended, revised, renewed, or otherwise modified, or when the Department determines such information is necessary to properly monitor a permit or license.

Instructions:

1. Question A.2 - For residual and municipal waste management facilities, enter either the permit number or the permit application number. For hazardous waste management facilities, enter the U.S. EPA ID Number.
2. Question A.3 - For corporations, enter the corporate name exactly as it appears on the corporate seal or in the Articles of Incorporation.
3. Unless otherwise noted herein, this module applies to compliance history in regard to the following statutes and regulations promulgated thereunder:
 - a. Pennsylvania Solid Waste Management Act of July 31, 1968, (P.L. 788, No. 241).
 - b. Pennsylvania Solid Waste Management Act of July 7, 1980. (P.L. 380, No.97).
 - c. Clean Streams Law of June 22, 1937, (P.L. 1987, No. 394).
 - d. The Air Pollution Control Act of January 8, 1960 (1959 P.L. 2119, No. 787).
 - e. The Surface Mining Conservation and Reclamation Act of May 31, 1945 (P.L. 1198, No. 418).
 - f. Dam Safety and Encroachments Act of November 26, 1978 (P.L. 1375, No. 325).
 - g. Other State and Federal statutes relating to environmental protection, air or water quality, solid waste management or surface mining.
4. If the Applicant is a corporation, this module shall be signed by two corporate officers (a president or vice-president *and* a secretary or treasurer) authorized to execute this module, or by one corporate officer and one corporate employee in Pennsylvania with sufficient authority over the solid waste management activity being licensed or permitted to be authorized to execute this module. A corporate seal shall be affixed; however, if no seal is required by the state of incorporation, the applicant should so state and no seal will be required.

COMPLIANCE HISTORY — MODULE NO. 10

Answer each of the following questions. If a question does not apply, enter N/A. Attach additional sheets as necessary.

A. Applicant Background:

1. Date prepared —
 2. Identification number —
 3. State the legal name and address of the applicant.
-
4. Identify all of the applicant's places of business and terminals where municipal or residual waste processing or disposal or hazardous waste generation (with the exception of small quantity generators), transportation, storage, treatment or disposal facilities or activities are conducted in Pennsylvania.
-
-
-
-
-
-
-
-
-
-
5. Identify the form of management under which the applicant conducts its business in Pennsylvania (check appropriate box):

☐ Individual	☐ Partnership
☐ Municipality	☐ Limited Partnership
☐ Proprietorship	☐ Government Agency
☐ Corporation	☐ Other (identify the nature of the business relationship)
-
6. Complete the following where applicable:
 - a. If the applicant is a corporation (as indicated in Question A. 5 above), list the names and addresses of all principals of the corporation. This shall include the following: corporate officers, members of the board of directors, and principal stockholders who own, hold, or control stock of five percent (5%) or more of a publicly held corporation or ten percent (10%) or more of a privately held corporation. List the social security number* of all individuals identified, and the IRS tax identification number and/or employer identification number of corporations and other business entities.

*Supplying individual social security numbers is optional; failure to provide all applicable numbers, however, will make processing of the application more difficult.

- b. List and designate the relationship of all United States parent corporations of the applicant, including ultimate parent corporations, and all United States subsidiary corporations of the applicant and of the ultimate parent corporation (if any) and their principal places of business. Include the IRS tax identification numbers of the corporations listed.**

- c. If the applicant is a partnership (as indicated in Question A.5 above), list the names, social security numbers* and addresses of all partners, both general and limited.**

- d. List the name, social security number*, or IRS tax identification number and/or employer ID number and affiliation of any other person or entity having or exercising control over any Pennsylvania DER-regulated aspect of the proposed facility or activity, such as associates, contractors, subcontractors, agents, or landowners.**

7. List all Pennsylvania DER permits or licenses, issued pursuant to the statutes listed in the Instructions, Item 3 (a-e) above, that the applicant, including all persons and organizations identified in this Section A, currently has in effect or has had in effect in the past ten years. (Include type of permit or license, number and location, date issued, expiration date, if any.)

8. Identify any solid waste processing or disposal facility, area or activity in Pennsylvania since 1970 or hazardous waste storage, treatment, transportation, or disposal facility, area, or activity in Pennsylvania since 1980 which the applicant, or any person or entity identified anywhere in Section A, currently owns or operates, or previously owned or operated, but which is not listed under any of the above responses to this Module. This shall include any solid waste management activities which are no longer permitted or which were never under permit. Include the locations(s) of all such facilities, areas, or activities, the type of operation, and identify any state or federal permits pursuant to which they operate or have operated.

B. Compliance Background:

1. Identify any "Notice of Violation" sent to the applicant or those persons or entities identified anywhere in response to Section A over the past five year period from Pennsylvania DER. Include the date of the "Notice of Violation", the location of the alleged violation, the nature of the alleged violation and the disposition. (Attach copies or make available upon request.)

2. Identify any administrative orders issued by Pennsylvania DER, civil penalties assessed by Pennsylvania DER, bond forfeiture actions brought by Pennsylvania DER, and civil penalties actions adjudicated by the Environmental Hearing Board since January 1, 1970, against the applicant or those entities identified anywhere in Section A. Describe the date, location of the violations, and nature of the violations. (Attach copies of orders, assessments and adjudications or make available upon request.)

3. Identify any summary, misdemeanor, or felony convictions or pleas of guilty or nolo contendere that have been obtained since 1970 in Pennsylvania against the applicant or those persons or entities identified anywhere in Section A pursuant to those statutes identified in the Instructions, Item 3, or for any acts in Pennsylvania involving the storage, treatment, transportation, processing, or disposal of solid wastes.

4. Identify any court proceedings in Pennsylvania since January 1, 1970 which relate to those statutes listed in the Instructions, Item 3, that those persons or entities identified anywhere in Section A have been a party to. State the disposition of those proceedings. Do not include those proceedings listed in Section B.3 above.

5. Identify any consent order, consent adjudication, consent decree or settlement agreement in Pennsylvania entered into since January 1, 1970 by the applicant, or those persons or entities identified anywhere in Section A, to which either a county health department, the Pennsylvania DER, or the U.S. Environmental Protection Agency was a party and which concerned any facility or activity in Pennsylvania regarding an environmental protection statute or ordinance.
6. For all facilities and activities identified in response to Question A.8 above, indicate whether such facility or activity was the subject of an administrative order, consent agreement, consent adjudication, consent order, settlement agreement, court order, consent decree, civil penalties, bond forfeiture proceedings, consent decree, conviction, or permit or license suspension or revocation pursuant to the statutes listed in the Instructions, Item 3. If any of these facilities or activities were subject to any of the actions identified herein, include the date of the action, the location of the violation, the nature of the violation, and disposition. (Attach copies or make available upon request.)
7. Where the applicant is a corporation, list all principals who have also been principals of other corporations which have committed past violations of Act 97.

8. Compliance Outside of Pennsylvania

[Note: For corporate applicants which are publicly traded, are diversified and have done business in Pennsylvania long enough to provide an in-state basis for evaluating compliance history, Item 8 may be answered through the submission of SEC 10K reports for the past five years, a current proxy statement, and any corporate statements or directives which articulate the corporation's policy with regard to compliance with environmental laws in general or solid waste management laws in particular. Any applicant who wishes to make such submission in response to Item 8 questions should ask for further instructions from the Pennsylvania DER office to which the permit or license application is being submitted.]

- a. Identify any misdemeanor or felony convictions of, or pleas of guilty or *nolo contendere* by, persons or entities listed anywhere in Section A for violations of any state or federal statutes for activities outside of Pennsylvania relating to environmental protection within the past five years. Include convictions and pleas for any acts involving the storage, treatment, transportation, processing or disposal of solid waste. (Describe the date of the convictions and offenses, the location of the offenses, and the nature of the offenses.)

- b. Identify any final administrative orders issued to those persons or entities identified anywhere in Section A within the past five years pursuant to any state or federal statutes for activities outside of Pennsylvania relating to environmental protection. (Describe the date of the order(s), the location of the violation(s), and the nature of the violation(s).) (Attach copies or make available upon request.)

- c. Identify any court order, court decree, consent decree, consent adjudication, consent order, final civil penalty adjudication, final action on bond forfeiture, or settlement agreement in the past five years between those persons or entities identified anywhere in Section A and any state or federal agencies responsible for environmental protection. (Describe the date of the order, decree, etc., the location of the violation(s), and the nature of the violation(s).) (Attach copies or make available upon request.)

I (we) hereby certify that I(we) have the authority to respond to the above questions on behalf of the applicant, and that the information provided herein is true and correct to the best of my(our)knowledge, information and belief.

(Signature)

Name: _____

Title: _____

Social Security No.: _____

Sworn to and subscribed before me this

_____ day of _____,

19____.

Notary Public.

(Signature)

Name: _____

Title: _____

Social Security No.: _____

Sworn to and subscribed before me this

_____ day of _____,

19____.

Notary Public

Affix Corporate Seal:

(For Corporations, see the Instructions, Item 4, regarding corporate seal and signatures.)

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Resources

**Guidelines for the Development and Implementation
of Preparedness, Prevention, and Contingency (PPC) Plans**

Bureau of Solid Waste Management
Bureau of Water Quality Management
P. O. Box 2063
Harrisburg, PA 17120
March 1981
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TABLE OF CONTENTS

	Page
Introduction	i
I. Procedures for Development and Review of PPC Plans	iv
A. Who Must Develop PPC Plans?	iv
B. How Do Existing Emergency Response Plans Fit in With PPC Planning?	iv
C. Development and Submission of PPC Plans For Review and Approval	iv
D. Distribution of the PPC Plan	v
E. Implementation of the PPC Plan	v
F. Revisions to the PPC Plan	v
II. PPC Plan Content and Format	1
A. General description of the industrial or commercial activity	3
B. Description of existing emergency response plans	3
C. Organizational structure for implementation of the PPC Plan	4
D. Material and waste inventory	4
E. Spill and leak prevention and response	5
F. Material compatibility	5
G. Inspection and monitoring program	6
H. Preventive maintenance	6
I. Housekeeping program	6
J. Security	7
K. External factors	7
L. Internal and external communications or alarm systems	7
M. Employee training program	7
N. List of emergency coordinators	8
O. Duties and responsibilities of the emergency coordinator	8
P. Chain of command	8
Q. List of agencies to be notified	8
R. Emergency equipment	8
S. Evacuation plan for installation personnel	8
T. Arrangements with emergency response contractors	9
U. Agreements with local emergency response agencies and hospitals	9
V. Pollution incident history	9
W. Implementation schedule	9
TABLE 1 - State and Federal Pollution Incident Prevention and Emergency Response Programs	ii
TABLE 2 - Comparison of State and Federal Pollution Incident Prevention and Emergency Response Programs	iii
TABLE 3 - Elements and Format of a PPC Plan	2
APPENDIX I - Pollution Incident Prevention Practices	10
APPENDIX II - Examples of an Emergency Coordinator's Duties and Responsibilities	14
APPENDIX III - Examples of Emergency Equipment	16

INTRODUCTION

A wide variety of industrial activities, both manufacturing and commercial, exist in Pennsylvania. Many of these activities have the potential for causing environmental degradation or endangerment of public health and safety through accidental releases of toxic, hazardous, or other pollutinal materials.

In recognition of this fact, several State and Federal regulatory programs have been developed to encourage the use of preventive approaches to deal with unwarranted releases of toxic, hazardous, or other pollutinal materials to the the environment.

Table 1 lists these programs and defines the statutory and regulatory basis for each. A more detailed summary of each program is shown in Table 2 which illustrates the similarities among them. A review of the regulations and guidelines pertaining to each program more clearly illustrates these similarities. The main differences between the programs are the types of industrial activities and the nature of the polluting materials addressed.

The Department's objective is to consolidate the similarities of the State and Federal pollution incident prevention and emergency response programs into one overall program. Industrial and commercial installations which have the potential for causing accidental pollution of air, land or water, or the endangerment of public health and safety are required to develop and implement *Preparedness, Prevention, and Contingency (PPC) Plans* which encompass the PIP, SPCC, BMP, and PPC/Contingency Planning program requirements.

**TABLE I — STATE AND FEDERAL POLLUTION INCIDENT
PREVENTION AND EMERGENCY RESPONSE PROGRAMS**

Program	Implemented by	State and Federal Laws Which Apply	State and Federal Implementing Regulations	Effective Date of Regulations
Pollution Incident Prevention (PIP)	Pa. DER as part of its Water Quality Management Program	Pa. Clean Streams Law	25 Pa. Code, Ch. 101	1971
Spill Prevention Control and Countermeasure (SPCC) ¹ (For "hazardous substances" as defined under Section 311 of the Clean Water Act)	Pa. DER and U.S.EPA as part of the NPDES program	Pa. Clean Streams Law Fed'l Clean Water Act	25 Pa. Code, Ch. 101 40 CFR 151	1971 proposed 9/77
Best Management Practices (BMP)	Pa. DER and U.S.EPA as part of the NPDES program	Pa. Clean Streams Law Fed'l Clean Water Act	25 Pa. Code, Ch. 101 40 CFR 125, Subpart K	1971 5/19/80
Preparedness, Prevention, and Contingency (PPC), or Contingency Planning	Pa. DER and U.S.EPA as part of the RCRA program	Pa. Solid Waste Management Act Fed'l Resources Conservation and Recovery Act	25 Pa. Code Ch. 75 40 CFR 264, Subparts C and D, and 40 CFR 265, Subparts C and D	11/19/80 11/1

(1) EPA has also promulgated SPCC regulations (40 CFR 112, 12/11/73) which establish requirements for preventing spills of oil into navigable waters of the U.S. by non-transportation related onshore and offshore facilities. These regulations are implemented and enforced by EPA only. As discussed in Section I of this guidance document, an oil-related SPCC plan developed to comply with EPA's regulations should be considered as *one part* of a facility's overall PPC Plan.

**TABLE 2 — COMPARISON OF STATE AND FEDERAL POLLUTION
INCIDENT PREVENTION AND EMERGENCY RESPONSE PROGRAMS**

Aspect	Pollution Incident Prevention (PIP)	Spill Prevention, Control, and Countermeasure (SPCC)	Best Management Practices (BMP)	Preparedness, Prevention, and Contingency (PPC), or Contingency Planning
Purpose	Prevention/control of accidental discharge of polluting materials to surface or groundwater	Prevention of accidental discharges of hazardous substances to surface waters	Prevention of accidental discharge of toxic and hazardous materials to surface waters	To minimize and abate hazards to human health and the environment from fires, explosions, or release of hazardous wastes to air, soil, or surface water
Types of Industrial Activities Affected	All industrial activities having potential for accidental pollution	Non-transportation related activities subject to the NPDES program, with potential for discharge of hazardous substances	Industrial activities subject to the NPDES program where significant amounts of toxic or hazardous pollutants are involved	Activities which generate, store, treat, transport, or dispose of hazardous wastes
Activities Covered?	Transportation, storage, processing of raw materials, intermediates, products, fuels, wastes	Production, storage, processing, refining, handling, transferring, distributing hazardous wastes	Use, manufacture, storage, handling of toxic and hazardous materials	Generation, storage, transport, treatment, disposal, of hazardous wastes
What Polluting Materials are Addressed?	All polluting materials	"Hazardous Substances" defined pursuant to Sec. 311 of the Clean Water Act	"Toxic" materials defined pursuant to Sec. 307 and "Hazardous Substances" defined pursuant to Sec. 311 of the Clean Water Act	"Hazardous Wastes" as defined under Ch. 75 of DER's regulations
Hazards Addressed	Container leaks, ruptures, spills, floods, power failures, mechanical failure, human error, strikes, vandalism, etc.	Same as PIP	Same as PIP	Same as PIP, plus fires and explosions
Plan Includes	Study of past incidents, training, preventive maintenance, house-keeping, security, backup equipment, internal, external communication, spill containment, drainage controls, inspections	Same as PIP	Same as PIP	Same as PIP plus additional local notification, emergency coordination, and evacuation requirements
Amendments to Plan Required for Significance Facility or Operational Changes?	Yes	Yes	Yes	Yes
Emergency Incident Report Required?	Yes	Yes	Yes	Yes

I. PROCEDURES FOR DEVELOPMENT AND REVIEW OF PPC PLANS

A. *Who Must Develop PPC Plans?*

In general, any manufacturing or commercial installation which has the potential for causing accidental pollution of air, land, or water, or for causing endangerment of public health and safety through accidental release of toxic, hazardous, or other polluting materials must develop, maintain, and implement a PPC Plan.

Manufacturing or commercial waste water dischargers, which are required to obtain NPDES permits, must develop PPC plans in order to satisfy the requirements of Chapter 101 of the Department's Rules and Regulations. In addition to NPDES discharges there are a variety of other non-NPDES manufacturing or commercial installations which may be directed by the Department to develop PPC plans on a case by case basis.

Manufacturing or commercial installations which generate hazardous waste, or which involve treatment, storage, or disposal of hazardous waste must develop PPC plans in conformance with Chapter 75 of the Department's regulations. (Note: hazardous waste transporters must also develop PPC plans under Chapter 75. A separate PPC guidance document has been developed for transporters.)

B. *How Do Existing Emergency Response Plans Fit in With PPC Planning?*

It should be noted that many manufacturing or commercial installations may have already developed a Pollution Incident Prevention (PIP) plan which should encompass most of the PPC considerations. In such cases the PIP plan may only need a slight amount of updating.

It should further be noted that oil-related Spill Prevention, Control, and Counter-measure (SPCC) plans, which are or have been developed pursuant to EPA's oil-related SPCC regulations, should also be considered as part of an installation's overall PPC plan. Some installations may elect to integrate their oil-related SPCC plan with the PPC plan elements, or may elect to keep it as a separate chapter, or appendix, to the PPC plan.

Other types of existing emergency response plans should be handled in a similar manner.

C. *Development and Submission of PPC Plans for Review and Approval.*

The PPC Plan must be developed in accordance with good engineering practice by someone who is familiar with the day-to-day operations at the site. If an outside consultant is employed for this purpose, he must be authorized to conduct a thorough study of the material storage, handling, usage, and waste management practices conducted at the installation.

Section II below outlines the general content and format of PPC plans.

In general PPC plans should be submitted for review and approval by the Department in conjunction with applications for Water Quality Management or Hazardous Waste Management permits, as follows:

1. NPDES dischargers should submit (2) copies of the PPC plan for review along with the NPDES application materials. If a PIP plan has previously been approved for the installation by the Bureau of Water Quality Management, the PIP should be updated to the extent considered necessary to conform with the PPC guidelines.

Facilities which are not required to obtain NPDES permits, but which must obtain Water Quality Management Part II permits, should submit (2) copies of the PPC plan for review along with the Part II permit application.

Other facilities which are not normally required to obtain NPDES or WQM Part II permits may also be required to develop and submit PPC Plan, should conditions warrant, pursuant to Chapter 101 of the Department's regulations.

2. Hazardous waste *generators* are required to develop PPC plans* and to maintain them on site. They are required to submit PPC plans to the Department for review and approval upon request by the Department.
3. Hazardous waste *treatment, storage, or disposal* facilities should submit one copy of the PPC plan* for *each* copy of the Hazardous Waste Part B permit application being submitted. In these situations the PPC plan is considered as part of the overall Hazardous Waste Part B permit application. Final PPC plan approval will accompany the issuance of a Hazardous Waste Management permit.

*Note: PPC plans developed by hazardous waste generators and/or treatment/storage/disposal facilities, which would not otherwise be required to obtain NPDES or Water Quality Management Part II permits, generally need only to address the PPC planning requirements as they pertain to generation, treatment, storage or disposal of hazardous wastes (unless otherwise directed by the Department).

D. *Distribution of the PPC Plan*

A copy of the PPC Plan and any subsequent revisions must be maintained on-site. All members of the installation's organization for developing, implementing, and maintaining the PPC Plan and all emergency coordinators must review the Plan and be thoroughly familiar with provisions.

In addition to the site copy, additional copies of the PPC plan should be made available to local fire, police, medical services, and other local emergency management agencies which may become involved in an actual emergency (see Description of PPC Plan Elements, Part U).

E. *Implementation of the PPC Plan*

The provisions of the PPC Plan must be carried out whenever emergency situations arise which endanger public health and safety, or the environment.

F. *Revisions to the PPC Plan*

The PPC Plan must be periodically reviewed and updated, if necessary. As a minimum, this must occur when:

1. Applicable Department regulations are revised;
2. The Plan fails in an emergency;
3. The installation changes in its design, construction, operation, maintenance, or other circumstances, in a manner that materially increases the potential for fires, explosions or releases of toxic or hazardous constituents; or which changes the response necessary in an emergency;
4. The list of emergency coordinators changes;
5. The list of emergency equipment changes; or
6. As otherwise required by the Department.

II. PPC PLAN CONTENT AND FORMAT

General Instructions

1. Table 3 outlines the basic elements of a PPC Plan. Each of these elements is further described below. Certain PPC Plan elements may not be entirely applicable or appropriate for a specific manufacturing or commercial installation. In these cases the person preparing the PPC Plan should act accordingly and should provide a brief explanation as to why the Plan element(s) in question is not applicable or inappropriate.
2. The most important thing to remember in developing a PPC Plan is that the actual effectiveness of the Plan will depend upon its simplicity and readability.

PPC plans which are composed of several volumes of overly detailed narrative discussions and specifications tend to discourage the reader or user. Diagrams, charts, tables, maps, and plans must be easily readable and understandable, particularly in times of an actual emergency.

The Plan should additionally be indexed or tabbed in such away that the key portions which pertain to emergency response can be quickly referred to.

TABLE 3 — ELEMENTS AND FORMAT OF A PPC PLAN

- A. General description of the industrial or commercial activity
- B. Description of existing emergency response plans
- C. Organizational structure for implementation of the PPC Plan
- D. Material and waste inventory
- E. Spill and leak prevention and response
- F. Material compatibility
- G. Inspection and monitoring program
- H. Preventive maintenance
- I. Housekeeping program
- J. Security
- K. External factors
- L. Internal and external communications and alarm systems
- M. Employee training program
- N. List of emergency coordinators
- O. Duties and responsibilities of the emergency coordinator
- P. Chain of command
- Q. List of agencies to be notified
- R. Emergency equipment
- S. Evacuation plan for installation personnel*
- T. Arrangements with emergency response contractors*
- U. Agreements with local emergency response agencies and hospitals*
- V. Pollution incident history
- W. Implementation schedule

* These elements pertain primarily to installations which store, treat, or dispose of "hazardous waste," although they may also apply to installation handling or using other types of toxic or hazardous materials in quantities which pose a public health risk in times of fire, explosions, or other emergencies.

DESCRIPTION OF PPC PLAN ELEMENTS

A. *General Description of the Industrial or Commercial Activity*

- Briefly describe the nature of the industrial or commercial activity which occurs at the site. Include a general discussion of products manufactured, manufacturing processes used, wastes generated, etc.
- On an 8½" x 11" portion of a 7½-minute USGS map show the following:
 - North indicating arrow
 - name of the 7½ minute USGS quadrangle
 - location of the site and site boundaries
 - location of surface drainage courses leading away from the site, and major surface streams and tributaries near the site
 - location of any known public and private groundwater supplies in the vicinity of the site, and
 - location of any known public and private surface water intakes downstream from the site.
- Include drawings (suggested size no larger than 36" x 50") which show the following:
 - general layout of the site
 - property boundaries
 - areas occupied by manufacturing or commercial activities
 - raw materials and product storage
 - loading and unloading operations
 - waste handling, storage, and treatment facilities
 - drains, pipes, and channels which lead away from potential leak or spill areas
 - outfall pipes which discharge to surface streams or drainage channels
 - secure and open-access areas
 - entrance and exit routes to the site

B. *Description of Existing Emergency Response Plan(s)*

- Briefly describe any existing plan which has been previously developed by the installation for the purpose of pollution incident prevention or emergency response preparedness. If the plan has previously been approved by the Department, this should also be noted, along with the date of approval.
- Provide a brief discussion as to how the existing plan relates to the overall PPC Plan being developed. The degree to which the existing plan encompasses some, or all, of the PPC Plan elements should also be noted.

As an example, existing Pollution Incident Prevention (PIP) Plans, which were previously developed to meet the Department's Water Quality Management program requirements may only need to be slightly modified or updated to satisfy the general PPC Plan requirements. A simple description which cross-references

the PIP Plan with the various PPC Plan elements will generally suffice in lieu of a detailed rewrite to conform with the suggested PPC Plan format.

Similar plans which have been prepared for agencies other than DER should also be described and cross-referenced to the maximum extent possible to the PPC Plan elements so as to minimize rewriting. For example, an oil-related Spill Prevention Control and Countermeasure (SPCC) Plan which has been developed to comply with EPA's regulations 40 CFR 112, may be treated as an appendix, or as a separate chapter, to the overall PPC Plan for an installation.

C. *Organizational Structure for Implementation of the PPC Plan*

- Describe the organizational structure for implementation of the PPC Plan.
- Describe the duties and responsibilities of the individuals within the PPC organization.

Each installation must develop a permanent organizational structure for developing, implementing, and maintaining the PPC Plan. The exact nature and make-up of this structure will vary considerably, depending upon the size and complexity of the installation.

For example, a large manufacturing company may either establish a formal PPC committee, or it may assign this responsibility to an existing organization within the company, such as a safety committee or a preventive maintenance group. A small manufacturing or commercial facility may only have one or two individuals responsible for developing and implementing the PPC Plan. However, the PPC organization, regardless of its size, must be given both the responsibility and authority by management for developing, implementing, and maintaining the PPC Plan.

The main duties and responsibilities of the PPC organizational structure should include identification of materials and wastes handled (materials inventory), identification of potential spill sources (risk assessment), establishment of spill-reporting procedures, visual inspection programs, review of past incidents and spills, and countermeasures utilized. In addition, the PPC organizational structure should be responsible for coordination needed to implement the goals of the PPC Plan, coordination of the activities for spill cleanup, notification of authorities, and establishment of training and educational programs for installation personnel.

The PPC organizational structure should have the overall responsibility for periodically reviewing and evaluating the PPC Plan, and instituting appropriate changes at regular intervals. The organizational structure should also be responsible for the review of new construction and process changes at an installation relative to the PPC Plan. The organizational structure should also evaluate the effectiveness of the overall PPC Plan and make recommendations to management on related matters.

D. *Material and Waste Inventory*

- Identify and list by common chemical name and trade name, the locations, sources and quantities of raw chemical materials, commercial chemical products, manufacturing chemical intermediates, and process wastes managed at the installation which have the potential for causing environmental degradation or endangerment of public health and safety through accidental releases. Requests for confidentiality of this information will be handled in accordance with Department regulations.

Detailed descriptions must be available for materials that have a high potential for spills, discharges, explosions, or fires (such as those stored in bulk storage). Materials that have a low potential for spills, discharges, explosions, or fires (such as those used and stored in small quantities in a laboratory) should be minimally detailed.

This information should be used to evaluate the prevention, containment, mitigation, cleanup, and disposal measures which would be used in the event of a spill, discharge, explosion, or fire. As new materials are added to the list their pollution potential should be evaluated.

- For each of the above listed materials, physical, chemical toxicological, health, and safety information based on available literature (e.g. technical bulletins, safety data sheets, scientific literature) shall be available for use in an emergency. Cite these references in the plan and their location.

E. *Spill and Leak Prevention and Response*

- Describe the sources and areas where potential spills and leaks may occur, the direction of flow of spilled materials, and the pollution incident prevention measures (see Appendix I) specific to the source or area.
- Provide separate drawings, plot plans (or include in the general layout drawings), showing sources and quantities of materials and wastes, sources and areas where potential spills may occur, and pollution incident prevention measures (see Appendix I).

The PPC Plan should include a prediction of the direction of the flow of materials spilled as a result of equipment failure, accident, or human error. Particular care and attention should be paid to evaluating the following: raw materials storage, in-plant transfer, process and materials handling, intermediary and product storage (if applicable), truck and rail car loading and unloading, and waste handling and storage.

Liquid storage areas must have containment capacity sufficient to hold the volume of the largest single container or tank, plus a reasonable allowance for precipitation based on local weather conditions and plant operations. Containment systems must be sufficiently impervious to contain spilled material or waste until it can be removed or treated. Tank or container materials must be compatible with the material or waste stored.

Pollution incident prevention practices to eliminate contaminated runoff, leaching, or windblowing must be implemented in non-liquid storage areas. Provisions must be made to contain or manage contaminated run-off or leachate from these areas.

Piping, processing, and materials handling equipment at in-plant transfer, process, and materials handling areas must be designed and operated so as to prevent spills. Containment practices should be instituted at processing and handling areas including floor drains, storm sewers, or drainage swales to prevent an accidental discharge. Protection such as covers or shields to prevent windblowing, spraying, and releases from pressure relief valves from causing a discharge should be provided as appropriate.

Truck and rail car loading and unloading areas must have sufficient containment capacity to hold the volume of the largest tank truck or rail car loaded or unloaded at the installation, plus a reasonable allowance for precipitation. Containment systems must be sufficiently impervious to contain spilled material or waste until it can be removed or treated.

F. *Material Compatibility*

- Summarize the engineering practices followed with regard to material compatibility such as materials of construction, corrosion, etc.

Engineering practices with regard to material compatibility normally consist of an appraisal of the compatibility of construction materials of tanks, pipelines, etc., with their contents; the reaction of materials or wastes when intentionally or inadvertently mixed or combined; and, the compatibility of a container such as a storage tank or pipeline with its environment.

Specific consideration should be given to the procedures and practices delineating the mixing of materials and prohibiting mixing of incompatible materials which may result in fire, explosion, or unusual corrosion. Thorough cleaning of storage vessels and equipment before reuse should be standard practice to ensure that there is no residual incompatible with the next or later materials used. Coatings or cathodic protection should be considered for protecting buried pipelines or storage tanks from corrosion.

G. *Inspection and Monitoring Program*

- Describe the type and frequency of inspections and monitoring for leaks or other conditions that could lead to spills or emergency situations.

Typical inspections include the following: pipes, pumps, valves, and fittings for leaks; tanks for corrosion; tanks supports and foundations for deterioration; chemical material piles for windblowing; evidence of spilled materials along drainage ditches; effectiveness of housekeeping practices; damage to shipping containers; leaks, seeps, or overflows at waste treatment, storage, or disposal sites; etc. Areas that should be inspected include the following: storage, loading and unloading, transfer pipelines, waste treatment facilities, and disposal sites.

Routine monitoring should be performed to determine the physical conditions and liquid levels in tanks, the quality of plant site run-off in diked areas, etc., either by manual testing or in situ instrumentation. Monitoring should be used to initiate a warning of the need for immediate corrective action to prevent a spill or other emergency condition. Monitoring systems should be used in conjunction with a communications or alarm system to immediately notify personnel of abnormal conditions.

An inventory system should also be considered for keeping track of those materials having the greatest potential for causing problems due to leaks, spills, or mishandling.

As a minimum, the frequency of inspection and monitoring must be in accordance with the applicable Department regulations and permits. Appendix I includes some additional inspection and monitoring examples.

H. *Preventive Maintenance*

- Describe the aspects of the preventive maintenance program for equipment and systems relating to conditions that could cause environmental degradation or endangerment of public health and safety.
- Describe the procedures for the correction of those conditions by adjustment, repair, or replacement before the equipment or system fails.

A good preventive maintenance program includes the following: (1) identification of equipment and systems to which the program should apply; (2) periodic inspections of identified equipment and systems; (3) periodic testing of equipment and systems, (such as routine calibration of environmental monitoring equipment); (4) appropriate adjustment, repair, or replacement of parts; and (5) complete recordkeeping of the applicable equipment and systems.

I. *Housekeeping Program*

- Identify the areas and the type of housekeeping practices that should apply to reduce the possibility of accidental spills and safety hazards to plant personnel.

Examples of good housekeeping include the following: neat and orderly storage of chemicals; prompt removal of small spillage; regular refuse pickup and disposal; maintenance of dry, clean floors by use of brooms, vacuum cleaners, or cleaning machines; and, provisions for the storage of containers or drums to keep them from protruding into open walkways, pathways, or roads.

Dry chemicals should be swept or cleaned up to prevent possible washdown to drains and drainage ditches or windblowing of the material to other areas of the plant. Small liquid accumulations on the ground or on a floor in a building should be cleaned up to prevent discharge or transport to other areas. See Appendix I for additional examples.

J. Security

- Describe the security procedures employed at the installation to prevent accidental or intentional entry that could result in a violation of Departmental regulations, or injury to persons or livestock.
- Security systems described in the PPC Plan should address, as necessary: fencing; lighting; vehicular traffic control; access control; visitors' passes; locked entrances; locks on drain valves and television monitoring. Security procedures must be in accordance with applicable Department regulations.

K. External Factors

- Describe the possible effects of power outages, strikes, floods, snowstorms, etc., and the action to be taken to alleviate any resulting effects to public health and safety or the environment.

L. Internal and External Communications or Alarm Systems

- Describe the internal communications or alarm used to provide immediate emergency instruction (voice or signal) to installation personnel.
- Describe the external communications or alarm system used to summon emergency assistance from local police or fire departments.

Examples of communications or alarms systems are: hand-held two-way radios; CB radios; telephones; fire or police alarms; PA systems; beeper or voice pagers; etc. This requirement must be in accordance with applicable Department regulations.

M. Employee Training Program

- Summarize the training program given to employees which will enable them to understand the processes and materials with which they are working, the safety and health hazards, the practices for preventing, and the procedures for responding properly and rapidly to spills.

At a minimum, the training program must be designed to ensure that personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment systems including, where applicable: procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment; key parameters for automatic cut-off systems; communications and alarms systems; response to fires and explosions; site evacuation procedures; and, shut-down of operations.

In addition, the employee training program should address other aspects of the PPC program, such as preventive maintenance, inspection and monitoring, housekeeping practices, etc. The training program must be designed and conducted in accordance with applicable Department regulations.

N. List of Emergency Coordinators

- Provide an up-to-date list of names, and addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator. Where more than one is listed, one must be named as the primary coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

At all times, there must be at least one employee either on the installation's premises or on-call with the responsibility for coordinating all emergency response measures. The emergency coordinator must be thoroughly familiar with all aspects of the Preparedness, Prevention, and Contingency Plan, all operations and activities, the location and characteristics of all materials handled, the location of all records, and the lay-out of the installation. In addition this individual should have the authority to commit the resources necessary to carry out the PPC Plan.

O. *Duties and Responsibilities of the Emergency Coordinator*

- Describe the duties and responsibilities of the emergency coordinator specific to your installation or activity in the event of an imminent or actual emergency.

During an emergency, the emergency coordinator should activate alarm systems, notify emergency response agencies, identify the problem, assess the health or environmental hazards, and take all reasonable measures to stabilize the situation. The emergency coordinator should also be responsible for follow-up activities after the incident such as treating, storing, or disposing of residues and contaminated soil, decontamination and maintenance of emergency equipment, and submission of any reports. Appendix II describes some example duties and responsibilities of the emergency coordinator.

P. *Chain of Command*

- Provide an internal list, by position, of key employees that must be contacted in the event of an emergency or spill.

List the positions, office telephone extensions, and home phone numbers (if applicable) of key employees, in the order of responsibility, that would be contacted in the event of an emergency or spill.

This list, along with the notification procedure, should be posted on bulletin boards or other conspicuous locations around the installation.

Q. *List of Agencies to be Notified*

- Provide a list of agencies and phone numbers that must be contacted in the event of an emergency or spill.

A list must be developed for notifying State, local, and Federal regulatory agencies of all spills. Such a list should include, as applicable: PA DER; PA Emergency Management Agency; County Health Department; PA Fish Commission; the National Response Center (U.S. EPA and U.S. Coast Guard); local police and fire departments; the local sewage treatment plant (for discharges to sewer system); and downstream public water supplies, industrial water users, and recreation areas.

R. *Emergency Equipment*

- Provide an up-to-date list of available emergency equipment. The list must include the location, a physical description, and a brief description of the intended use and capabilities of each item on the list.
- Describe the procedures for maintenance and decontamination of emergency equipment.

All installations should have equipment available to allow personnel to respond safely and quickly to emergency situations. Some examples of emergency equipment are portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, decontamination equipment, self-contained breathing apparatus, gas masks, and emergency tool and patching kits. See Appendix III for more examples.

All equipment must be tested and maintained as necessary to assure its proper operation in time of emergency. After an emergency, all equipment must be decontaminated, cleaned, and fit for its intended use before normal operations resume.

S. *Evacuation Plan for Installation Personnel*

- Describe the evacuation plan for installation personnel where there is a possibility that evacuation could be necessary.

The PPC Plan must describe signals to be used to begin evacuation, primary evacuation route, and alternate evacuation routes (in cases where primary routes could be blocked by releases of hazardous materials, wastes, gases, or fires). Periodic drills should be conducted to evaluate the effectiveness of the plan.

T. *Arrangements with Emergency Response Contractors*

- Provide a list of emergency response contractors, phone numbers, and the services they will provide.

The services of nearby contractors should be investigated and arrangements made for the prompt performance of contractual services on short notice. Equipment suppliers should be contacted to determine the availability and means of delivery of equipment needed for removing pollution or hazards to the public health and safety.

U. *Arrangements with Local Emergency Response Agencies and Hospitals*

- Provide a list of local emergency response agencies, and hospitals. Include the phone numbers and describe arrangements concerning the emergency services they will provide.

Arrangements must be made, as appropriate, to inform a local emergency response agencies, and hospitals concerning the type of materials or wastes handled at the installation and the potential need for services. Arrangements should be made which will designate who will be the primary emergency response agency and who will provide support services during emergencies.

Efforts should be made to familiarize police, fire departments, emergency response teams, and the County Emergency Management Coordinator with the layout of the installation, the properties and dangers associated with the hazardous materials handled, places where personnel would normally be working, entrances to roads inside the facility, and the possible evacuation routes. As minimum, this requirement must be in accordance with applicable Department regulations.

V. *Pollution Incident History.*

- List the previous pollution incidents, the date, the material or waste spilled, approximate amount spilled, environmental damage, and action taken to prevent a recurrence.

An important criteria in determining the effectiveness of the PPC Plan program is the history of incidents at the installation. A history of no incidents suggest that the practices and procedures at the site are effective. For a site with a history of incidents it is important to investigate the reasons for the spills and the response of the company in minimizing the potential for their recurrence.

W. *Implementaion Schedule*

- Provide a list of any missing or incomplete aspects of the PPC Plan and a time schedule when they will be implemented.

An implementation schedule of any elements of the PPC Plan not currently in place must be developed. Each missing or incomplete aspect of the plan should be addressed and discussed within the applicable elements of the plan. Missing or incomplete aspects must be implemented as soon as possible and in conformance with all Department regulations and requirements.

APPENDIX I

POLLUTION INCIDENT PREVENTION PRACTICES

Pollution incident prevention practices can be divided into the following four categories: prevention, containment, mitigation and ultimate disposition. The listings below provide specific examples of each category.

1. PREVENTION

Visual Observations of:

- Storage facilities
- Transfer pipelines
- Loading and unloading areas
- Waste handling and storage areas

Detailed Inspections of:

- Pipes, pumps, valves, and fittings for leaks
- Tanks for corrosion (internal and external)
- Dry material or waste stockpiles for windblowing
- Tanks supports or foundations for deterioration
- Walls for stains
- Drainage ditches and areas around old tanks for evidence of spilled materials
- Primary or secondary containment for deterioration
- Housekeeping practices
- Shipping containers for damage
- Material or waste conveyance systems for leaks, spills, or overflows
- Integrity of stormwater collection systems
- Waste storage, treatment, or disposal sites for leaks, seeps, and overflows

Monitoring

- Liquid-level detectors
- Alarm systems
- Pressure and temperature gauges
- Analytical testing instrumentation
- Pressure drop shut-off devices
- Flow meters
- Valve positioning indicators
- Equipment operational lights
- Excess-flow valves
- Automatic runoff diversion devices
- Routine sample collection
- Redundant instrumentation

Nondestructive Testing

- Hydrostatic pressure tests
- Acoustical emission tests
- Records of tank wall thicknesses

Labeling

- U.S. DOT or National Fire Protection Association's (NFPA) designation on tanks and pipelines
- Color coding of tanks and pipelines
- Warning signs

Vehicle Positioning

- Physical barriers (e.g., wheel chocks)
- Underlying drains
- Designated loading and unloading areas

Covering

- Tarpaulins over outdoor dry waste or material stockpiles
- Buildings or roofs over outside processes or stockpiles
- Vegetation, rock, or synthetic covering on surface impoundments

Pneumatic and Vacuum Conveying

- Loading and unloading by air pressure or vacuum
- Safety relief valves
- Dust collectors
- Air slide trucks and rail cars

Preventive Maintenance

- Identification of equipment and systems
- Periodic inspections
- Periodic testing
- Appropriate adjustment, repair, or replacement of parts
- Complete recordkeeping

Good Housekeeping

- Neat and orderly storage of chemicals
- Prompt removal of small spillage
- Regular garbage pickup and disposal
- Maintenance of dry, clean floors by use of brooms, vacuum cleaners, etc.
- Maintenance of proper spacing for pathways and walkways between containers and drums
- Stimulation of employee interest in good housekeeping

Employee Training Programs

Materials Inventory Systems

2. CONTAINMENT

Secondary Containment

- Dikes
- Curbs
- Depressed areas
- Storage basins
- Sumps
- Drip pans
- Liners
- Double piping
- Sewer collection systems

Flow Diversion

- Trenches
- Drains
- Graded pavement
- Grating
- Overflow structures
- Sewers
- Culverts

Vapor Control

- Water spray
- Vapor space
- Vacuum exhaust

Dust Control

- Hoods
- Cyclone collectors
- Bag-type collectors
- Filters
- Negative-pressure systems
- Water spraying

Sealing

- Foamed plastic compounds used for plugging leaks in tanks

3. MITIGATION

Physical Clean-up

- Brooms
- Shovels
- Plows

Mechanical Clean-up

- Vacuum systems
- Pumps
- Pump/bag system

Chemical Clean-up

Sorbents

- activated carbon
- polyurethane and polyolefin spheres, beads, and foam belts
- amorphous silicate glass foam
- clay
- sawdust

Gelling agents

- polyelectrolytes
- polyacrylamide
- butylstyrene copolymers
- polyacrylonitrile
- polyethylene oxide

Foams

- rockwood alcohol
- protein
- fluoroprotein
- aqueous film-forming foam
- polar liquid foam
- surfactant-based foam

Volatilization

- distillation
- stripping
- evaporation

- Carbon absorption
- Coagulation/precipitation
- Neutralization
- Ion exchange
- Chemical oxidation
- Biological treatment

4. **ULTIMATE DISPOSITION**

- Thermal oxidation
- Land disposal
- Recycle
- Recover
- Reuse
- Detoxification

APPENDIX II

EXAMPLES OF AN EMERGENCY COORDINATOR'S DUTIES AND RESPONSIBILITIES

Whenever there is an imminent or actual emergency situation, the emergency coordinator must *immediately*:

1. Activate facility alarms or communications systems, where applicable, to notify facility personnel; and
2. Notify local emergency response agencies including the Department.

Whenever there is an emission or discharge, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of emitted or discharged materials. He may do this by observation or review of records and, if necessary, by chemical analysis.

Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the emission or discharge, fire, or explosion. This assessment must consider both direct and indirect effects of the emission, discharge, fire, or explosion.

If the emergency coordinator must assess possible hazards to human health or the environment that may result from the emission or discharge, fire, or explosion. This assessment must consider both direct and indirect effects of the emission, discharge, fire, or explosion.

If the emergency coordinator determines that the installation has had an emission, discharge, fire, or explosion which would threaten human health or the environment, he must *immediately* notify the applicable local authorities and indicate if evacuation of local areas may be advisable; and, *immediately* notify the Department by telephone at 717-787-4343 and the National Response Center at 800-424-8802 and report the following:

1. Name of the person reporting the incident
2. Name and location of the installation
3. Phone number where the person reporting the spill can be reached
4. Date, time, and location of the incident
5. A brief description of the incident, nature of the materials or wastes involved, extent of any injuries, and possible hazards to human health or the environment
6. The estimated quantity of the materials or wastes spilled, and
7. The extent of contamination of land, water, or air, if known.

During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fire, explosion, emission, or discharge do not occur, reoccur, or spread to other materials or wastes at the installation. These measures shall include, where applicable, stopping manufacturing processes and operations, collecting and containing released materials or wastes, and removing or isolating containers.

If the installation stops operations in response to a fire, explosion, emission, or discharge, the emergency coordinator must ensure that adequate monitoring is conducted for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

Immediately after an emergency, the emergency coordinator with Departmental approval must provide for treating, storing, or disposing of residues, contaminated soil, etc., from an emission, discharge, fire, or explosion at the installation.

The emergency coordinator must insure, that in the affected areas of the installation, no material or waste incompatible with the emitted or discharged residues is processed, stored, treated, or disposed of until cleanup procedures are completed; and, all emergency equipment listed in the PPC Plan is cleaned and fit for its intended use before operations are resumed.

Within 15 days after the incident, the installation must submit a written report on the incident to the Department. The report must include the following:

1. Name, address, and telephone number of the individual filing the report
2. Name, address, and telephone of the installation
3. Date, time, and location of the incident
4. A brief description of the circumstances causing the incident
5. Description and estimated quantity by weight or volume of materials or wastes involved
6. An assessment of any contamination of land, water, or air that has occurred due to the incident
7. Estimated quantity and disposition of recovered materials or wastes that resulted from the incident, and
8. A description of what actions the installation intends to take to prevent a similar occurrence in the future.

APPENDIX III

EXAMPLES OF EMERGENCY EQUIPMENT

Special equipment is often required and may be needed quickly in an emergency. Examples include the following:

Aerial ladder	Fuel Supply
Absorbant materials	Geiger counter
Accident investigation kit	Generator trailer
Air compressor	Heaters, portable
Air supply, for breathing equipment	Helicopter
Backhoe	Hydraulic spreader jacks
Basket stretchers	Inhalator
Bulldozer	Jack hammer
Bullhorn	Jacks
Camera/photo equipment	Ladder Truck
Cellar pump	Lighting equipment, portable
Chain hoist	Medical supplies
Chain saw	Metal saw (power)
Chemical neutralizers	Public address system
Crane	Radio
Cutters (power)	Resuscitator
Decontamination equipment with a clean water supply (70-80°F).	Sand supply
Ejector - smoke	Self-contained breathing apparatus (SCBA)
Elevated platform truck	Self-contained underwater breathing apparatus (SCUBA)
Explosimeters	Submersible pump
Fans	Tank truck
Firefighting equipment	Tool box
First aid supplies	Welding/cutting equipment
Foam concentrate supply	Water pump
Foam generators	
Forklift	



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES



February 13, 1985

INSTRUCTIONS FOR APPLYING FOR A
PENNSYLVANIA HAZARDOUS WASTE TRANSPORTER LICENSE

To apply for a Pennsylvania Hazardous Waste Transporter License, you should first complete an application and return it to the Department of Environmental Resources, Bureau of Solid Waste Management, P.O. Box 2063, Harrisburg, PA 17120, with a check for \$200 made payable to the "Commonwealth of Pennsylvania." The \$200 is a non-refundable application fee. About two weeks after receipt of your application, you will receive a letter detailing all of the things which must be done to complete the licensure process. They include at least the following:

You must submit a collateral bond in an amount determined by the hazard class and quantity of waste which you intend to transport in Pennsylvania. The minimum bond amount is \$10,000 and will increase, depending on the hazard codes you check and the quantities you indicate on your application. The bond is a collateral bond and the collateral must be in the form of cash, an irrevocable letter of credit, or acceptable negotiable bonds assigned to the Department. Under State law, surety bonds are unacceptable as a hazardous waste transporter bond.

You will also be required to prepare a Contingency Plan based on the Department's guidelines, and to submit a Certificate of Insurance showing that you carry at least \$1 million worth of property damage and bodily injury liability insurance (usually as part of your automobile coverage). You will be required to complete a Module 10, Compliance History, providing a history of your company's compliance with environmental laws and regulations. You will also be required to complete a Notification of Hazardous Waste Activity Form.

You are given ninety (90) days to complete the above documents. It takes a minimum of six (6) weeks for you to become licensed after receipt of acceptable collateral.

In addition, you should contact the following agencies in Pennsylvania:

Hazardous Substances Division
Department of Transportation
717-787-7445

Pennsylvania Turnpike Commission
717-939-9551

Public Utility Commission
717-783-5945

If you have any additional questions, please contact Jeffrey A. Beatty, Solid Waste Program Specialist, Bureau of Solid Waste Management at (717) 787-6239.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT

-OFFICIAL USE ONLY-

HAZARDOUS WASTE TRANSPORTER LICENSE APPLICATION

(CHECK ONE) ☐ New License ☐ Renewal HWT License No. PA-AH _____

Base Bond _____

Additional Bond _____

Total Bond _____

1. EPA I.D. NO. _____

2. Name of Company _____

Mailing Address _____

Location _____

If within PA, Municipality _____ County _____

Bus. Phone No. _____ 24 hr. Emergency Phone No. _____
(Area Code) (Area Code)

3. If a subsidiary or division, name of parent company _____

4. Types of hazardous wastes to be transported:

	E.P. TOXIC	IGNITABLE	CORROSIVE	TOXIC	REACTIVE	ACUTE HAZARDOUS
Solid	☐	☐	☐	☐	☐	☐
Liquid	☐	☐	☐	☐	☐	☐
Gas	☐	☐	☐	☐	☐	☐

Solid - equal to or greater than 20% solids by dry weight and non-flowable. Flowable refers to flow in the sense of pourable as a liquid. Liquid - less than 20% solids by dry weight. Gas: Gas at ambient temperature and pressure.

5. Average yearly total tonnage of hazardous waste picked up or delivered within PA _____ tons.

6. Number of copies of license requested _____.

7. On a separate 8-1/2" x 11" sheet of paper list the names, titles, and addresses of **ALL** corporate officers. If applicant is not a corporation, see Instruction #7 on reverse.

8. If there are terminal locations, including the address given in answer to question No. 2 above, that will store hazardous waste in transit or be used for consolidation of hazardous waste shipments in PA, please complete the Terminal Location Form ER-SWM-52B, listing each such location.

9. Name of Contact Person _____ Telephone No. _____
(Area Code)10. **Certification** This is to certify that the information contained and attached to this application is true, correct, and complete to the best of my knowledge.

Print or Type Name of Corporate Officer

Title

Signature of Corporate Officer

Date Signed

AFFIX
CORPORATE
SEAL

APPLICATION FEE - \$200
(SEE INSTRUCTIONS ON REVERSE)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

HAZARDOUS WASTE TRANSPORTERS LICENSE APPLICATION

INSTRUCTIONS

Only transporters who pick up and/or deliver hazardous wastes within the Commonwealth are required to be licensed by the Department. Transporters who only haul hazardous wastes through the Commonwealth are not required to be licensed but may be subject to certain PA Department of Transportation, PA Turnpike Commission, and PA Public Utility Commission requirements.

After reviewing the completed license application, the Department will send a letter to the applicant notifying him of the collateral bond, contingency plan, insurance, and other requirements. Upon approval by the Department of all the required documents, a license may be issued.

All applications for a hazardous waste transporter license must be accompanied by a check for \$200 made payable to the "Commonwealth of Pennsylvania". If you have any questions about the license application, please contact the Division of Hazardous Waste Management at (717) 787-7381. The instructions below correspond to the license application.

1. Enter your EPA ID Number. If you have not received an EPA ID Number, please contact the Division of Hazardous Waste Management at (717) 787-7381 for further information.
2. Enter the legal name of your company. If the headquarters location is the same as the mailing address, enter "same".
3. Self-explanatory.
4. Indicate the types of hazardous waste you intend to transport based on the hazard codes of the wastes found in § 75.261 of the Department's regulations and the physical states defined on the license application. If you do not know what types of wastes you intend to transport, you should obtain that information from the generator of the waste. Please be advised that you will be licensed to transport only the hazard codes and physical states you designate on this license application.
5. Estimate the total tons of hazardous wastes per year that will be transported within PA. If you estimate that you will transport 110 tons or less, you may qualify as a Small Quantity Hazardous Waste Transporter with the minimum collateral bond required. Contact the Department for information regarding the Small Quantity Hazardous Waste Transporter License.
6. Indicate the number of copies of the license you will need. A copy of the license is required to be carried on the transport vehicle while transporting hazardous waste which is picked up or delivered within PA.
7. If the applicant is not a corporation, list the names, titles, and addresses of officials as follows: if the applicant is a Limited Partnership, list all general partners; for all other Partnerships, list all partners; for Sole Proprietorships, list the proprietor; for Municipal, State, Federal, or other Public Agencies, list all executive officers or ranking elected officials.
8. See Form ER-SWM-52B, Pennsylvania Terminal Location form.
9. Self-explanatory.
10. If the applicant is not a corporation, see Item No. 7 above. Only one signature is required on the application. Corporations must affix their corporate seal.

Send the completed application and the \$200 application fee to:

PA Department of Environmental Resources
Division of Hazardous Waste Management
P.O. Box 2063
Harrisburg, PA 17120

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT

HAZARDOUS WASTE TRANSPORTERS LICENSE APPLICATION

PA TERMINAL LOCATION FORM

EPA Identification No. (if applicable) _____
Terminal Name _____
Address _____
Terminal Telephone Number _____
(Area Code) _____
County _____
Are hazardous wastes stored in-transit? ☐ Yes ☐ No If yes, how long? _____ Days
Name of Terminal Manager _____
Print or Type Name

EPA Identification No. (if applicable) _____
Terminal Name _____
Address _____
Terminal Telephone Number _____
(Area Code) _____
County _____
Are hazardous wastes stored in-transit? ☐ Yes ☐ No If yes, how long? _____ Days
Name of Terminal Manager _____
Print or Type Name

EPA Identification No. (if applicable) _____
Terminal Name _____
Address _____
Terminal Telephone Number _____
(Area Code) _____
County _____
Are hazardous wastes stored in-transit? ☐ Yes ☐ No If yes, how long? _____ Days
Name of Terminal Manager _____
Print or Type Name

EPA Identification No. (if applicable) _____
Terminal Name _____
Address _____
Terminal Telephone Number _____
(Area Code) _____
County _____
Are hazardous wastes stored in-transit? ☐ Yes ☐ No If yes, how long? _____ Days
Name of Terminal Manager _____
Print or Type Name

EPA Identification No. (if applicable) _____
Terminal Name _____
Address _____
Terminal Telephone Number _____
(Area Code) _____
County _____
Are hazardous wastes stored in-transit? ☐ Yes ☐ No If yes, how long? _____ Days
Name of Terminal Manager _____
Print or Type Name

If additional copies of this form are required, please photocopy.

**AUTHORIZED SIGNATURES FOR DOCUMENTS RELATING TO ISSUANCE OR
RENEWAL OF A HAZARDOUS WASTE TRANSPORTER LICENSE**

Hazardous Waste Transporter License documents require signature as indicated below:

Proprietorships

Application, Collateral Bond and Module No 10 - Owner

Partnerships

Application - One partner
Collateral Bond and Module No. 10 - ALL partners

Corporations

Application - One corporate officer from either Column A or B
Collateral Bond and Module No. 10 - One from Column A and one from Column B

A

President
Vice-President

B

Secretary
Assistant Secretary
Treasurer
Assistant Treasurer

**If you have only one corporate officer, please attach a
notarized statement to that effect.**

August, 1983

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT

COLLATERAL BOND

Purpose: Bond for the Transportation of Hazardous Waste

(To be completed by Applicant)

Name of Company: _____

Location of Company: _____

(Municipality)

(County)

(To be completed by Department)

Hazardous Waste Transporter's

License No. _____

Date of License Issuance _____

WHEREAS, _____

a (1) corporation, incorporated under the laws in the State of _____

or (2) _____

(Partnership, Individual, Registered Fictitious Name Business)

with his/her/its principal place of business at _____

(Address)

_____, has filed an application for a license with the Commonwealth of Pennsylvania, Department of Environmental Resources (hereinafter referred to as the "Department") under the provisions of the "The Solid Waste Management Act", Act of July 7, 1980, No. 1980-97, as amended (hereinafter referred to as the "Solid Waste Management Act") to conduct the transportation of hazardous waste within the Commonwealth of Pennsylvania.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, that _____

Name of Hazardous

Waste Transporter Licensee (hereinafter referred to as "Licensee"), in consideration of the issuance

of the aforesaid license and intending to be legally bound hereby, is held and firmly bound unto the Department, in the just and full sum of _____

(\$ _____) Dollars, to the payment whereof well and truly to be made, the Licensee does

hereby bind _____ heirs, executors, administrators, assigns and successors,
(his, hers or its)

firmly by these presents:

NOW THE CONDITION OF THIS OBLIGATION is such that if the Licensee shall faithfully perform all of the requirements of (1) the "Solid Waste Management Act", (2) the applicable rules and regulations promulgated thereunder, (3) any order of the Department, and (4) the terms and conditions of the license issued thereunder and designated in this bond (all of which are hereinafter referred to as the "law") and (5) such amendments or additions to the law as may hereinafter be lawfully made then this obligation shall be null and void, otherwise to be and remain in full force and effect.

LIABILITY UPON THIS BOND shall be for the amount specified herein, which is a penalty for non-compliance with the law. Liability upon this bond shall continue at a minimum for the duration of the license or any renewal thereof and for a period of one (1) year after the expiration of the license. The one year period of liability shall include and shall be automatically extended for such additional time during which administrative or legal proceedings involving a violation the law by the transporter are pending.

AND FOR THE PURPOSE OF SECURING SAID OBLIGATION, the Licensee hereby deposits the following collateral, in cash, automatically renewable irrevocable bank letters of credit, or negotiable bonds of the United States Government, the Commonwealth of Pennsylvania, the Pennsylvania Turnpike Commission, the General State Authority, the State Public School Building Authority, or any municipality within the Commonwealth.

Description of Collateral

A) Negotiable Bonds

Name of Issue & Bond No.	Face Value	Market Value
_____	_____	_____
_____	_____	_____
_____	_____	_____

B) Automatically Renewable Irrevocable Letters of Credit
Bank Reference No. Amount

_____	_____	_____
_____	_____	_____
_____	_____	_____

Sub Total

Description of Collateral (continued)

C) Cash, Certified Check, Cashier's Check, Treasurer's Check

Cash	Bank	Check No.	Amount
☐	_____	_____	_____
☐	_____	_____	_____
☐	_____	_____	_____
(Check if Applicable)		Sub Total	=====

Total Amount of Collateral: _____

The Secretary of the Department shall, upon receipt of deposits of cash or securities, immediately place the same with the State Treasurer, who shall receive and hold the same in the name of the Commonwealth for the purposes for which such deposit is made and in accordance with the terms of the Bond. Where securities deposited mature or are called, the State Treasurer, at the request of the licensee, may convert such securities into other acceptable securities designated by the licensee. The Licensee hereby nominates, constitutes and appoints the State Treasurer, its attorney in fact, for the purpose of endorsing and negotiating liquidation or an exchange of said securities or any part thereof, for the purpose of exchange of collateral as aforesaid or in the event of forfeiture of this obligation under the terms of this Bond.

UPON THE HAPPENING OF ANY DEFAULT of the provisions, conditions and obligations assumed under this Bond and the declaration of a forfeiture by the Secretary, or his designee, the period for appeal provided by law having expired, the Licensee hereby authorizes and empowers the State Treasurer to liquidate the said collateral and deposit the proceeds to the account of the Department as provided by law.

FURTHER, the Department reserves the right to require additional bonding from the Licensee, for any reason, which shall be a supplement to and augment the amount of bond provided herein. Nothing herein shall limit or preclude the Department from seeking any penalty, liability or remedy, in addition to the forfeiture of this Bond, which may be authorized or provided by law.

IN WITNESS WHEREOF, the Licensee hereunto sets its hand and seal, intending to be legally bound hereby, this _____ day of _____, 19____.

ATTEST OR WITNESS:

HAZARDOUS WASTE TRANSPORTER

(Signature)

(Name of Licensee)
By _____
(Signature)

(Signature)

(Title)

By _____
(Signature)

(Title)

(Corporate Seal)

Approved as to legality and form:

Office of Attorney General

Chief/Assistant Counsel
Department of Environmental Resources

APPROVED FOR THE DEPARTMENT:

(Signature)

(Title)

**Commonwealth of Pennsylvania
Department of Environmental Resources
Instructions for the Completion of Collateral Bond Form ER-SWM-28**

The following page-by-page instructions are to be used as an aid in completing Collateral Bond forms by hazardous waste transporter license applicants. Please type or print clearly using a ball point pen. If you have any questions about the bond form, please contact the Division of Hazardous Waste Management at (717) 787-7381.

PAGE 1

The *Name and Location of the Principal Place of Business* must correspond to that listed in Item 2 of the License Application (Form ER-SWM-52). If you are out-of-state, enter NA in the municipality and county.

All references to the Licensee in this or any other bond documents *and* all securities or Letters of Credit must correspond to the name of the *License Applicant* as listed in Item 2 of the License Application. Documents or securities may not be in the name of parent companies, subsidiary companies or any other third party.

The *Just and Full Sum* of the Collateral Bond represents the total amount of Collateral Bond Liability as specified by the Department.

Liability upon the Bond will be for the duration of the license and any renewal and for a minimum of one year after the expiration of the license unless released by the Department.

PAGE 2 AND 3

Description of Collateral. Negotiable Bonds, Letters of Credit or Cash submitted as the Collateral Payment must be listed under the appropriate category with all the required information. Negotiable Bonds will be valued at current market value and not face value.

Letters of Credit must be in the form specified on the reverse side of these instructions and issued from a bank organized or authorized to transact business in the United States.

Total Amount of Collateral represents the total collateral bond payment submitted. This figure must equal the total Collateral Bond Liability specified on Page 1 of the form.

PAGE 4

The Collateral Bond Documents must be executed in the following manner:

1. *All* signatures affixed to the document must be witnessed.
2. *Corporations* - Two Corporate Officers must sign the document and the Corporate Seal must be affixed.
3. *Limited Partnerships* - All General Partners must sign the document. Limited Partners need not sign.
4. *All Other Partnerships* - All Partners must sign the document.

IRREVOCABLE
COMMERCIAL
LETTER OF CREDIT

THE ANYTOWN BANK, N.A.
Anytown, USA

US\$1,000,000.00

January 1, 1981

DRAFTS DRAWN HEREUNDER MUST BE MARKED:
"DRAWN UNDER THE ANYTOWN BANK, N.A., ANYTOWN, USA
I/C REF. P000000 " AND INDICATE THE DATE HEREOF.

COMMONWEALTH OF PENNSYLVANIA
BUREAU OF SOLID WASTE MANAGEMENT
FULTON BANK BUILDING
P.O. BOX 2063
HARRISBURG, PENNSYLVANIA 17120

SPECIMEN

"B"

GENTLEMEN:

WE HEREBY AUTHORIZE YOU TO DRAW ON THE ANYTOWN BANK, N.A., ANYTOWN, USA

BY ORDER OF ABC WASTE DISPOSAL COMPANY, ANYTOWN, USA

AND FOR ACCOUNT OF ABC WASTE DISPOSAL COMPANY, ANYTOWN, USA

UP TO AN AGGREGATE AMOUNT OF US \$1,000,000.00

AVAILABLE BY YOUR DRAFTS AT SIGHT

This letter of credit shall be automatically renewed for additional terms of one (1) year unless the Bank gives at least ninety (90) days written notice to the Commonwealth of its intent to terminate the credit at the end of the current term. The Commonwealth of Pennsylvania shall have the right to draw upon this letter of credit up to the aggregate amount, less any prior drafts by the Commonwealth, and hold it as a cash collateral guarantee if ABC Waste Disposal Company fails to replace this letter of credit with other acceptable collateral guarantees within thirty (30) days after the Bank gives its written notice to terminate the credit at the end of the current term.

DRAFTS MUST BE DRAWN AND NEGOTIATED NOT LATER THAN January 1, 1982 or annually thereafter if the credit is not terminated as provided herein.

THE AMOUNTS THEREOF MUST BE ENDORSED ON THIS LETTER OF CREDIT.

WE HEREBY AGREE WITH THE DRAWERS, ENDORSERS, AND BONA FIDE HOLDERS OF ALL DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT, THAT SUCH DRAFTS WILL BE DULY HONORED UPON PRESENTATION TO THE DRAWEE.

THIS LETTER OF CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS (1974 REVISION), INTERNATIONAL CHAMBER OF COMMERCE PUBLICATION NO. 290 or successor publications.

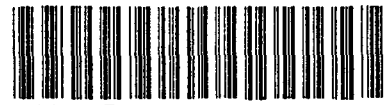
YOURS VERY TRULY,

SPECIMEN

ASSISTANT TREASURER/PER PROCURATIO



Bureau of Waste Management
P. O. Box 2063
Harrisburg, PA 17120



* P A B X 2 1 7 9 4 9 4 *

ER-SWM-51:REV. 10/84

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)
Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law but is required by State law.		
3. Generator's Name and Mailing Address				A. State Manifest Document Number PAB 2179494			
				B. State Gen. ID			
4. Generator's Phone ()				C. State Trans. ID PA-AH			
5. Transporter 1 Company Name		6. US EPA ID Number		D. Transporter's Phone ()			
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Trans. ID PA-AH			
9. Designated Facility Name and Site Address		10. US EPA ID Number		F. Transporter's Phone ()			
				G. State Facility's ID Not Required			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	
				15. Waste No.			
a.							
b.							
c.							
d.							
J. Additional Descriptions for Materials Listed Above (include physical state and hazard code)				K. Handling Codes for Wastes Listed Above			
Haz. Code Physical State		Haz. Code Physical State		a. c.			
a. ☐ ☐		c. ☐ ☐		b. d.			
b. ☐ ☐		d. ☐ ☐					
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations, and all applicable State laws/regulations.							
Printed/Typed Name			Signature		Date Month Day Year		
17. Transporter 1 Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name			Signature		Month Day Year		
18. Transporter 2 Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name			Signature		Month Day Year		
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.				Date			
Printed/Typed Name			Signature		Month Day Year		

GENERATOR

TRANSPORTER

FACILITY

PAB 2179494

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES**

**GUIDELINES FOR THE DEVELOPMENT AND
IMPLEMENTATION OF A CONTINGENCY PLAN
FOR THE TRANSPORTATION OF HAZARDOUS WASTE**

**BUREAU OF SOLID WASTE MANAGEMENT
DIVISION OF HAZARDOUS WASTE MANAGEMENT
POST OFFICE BOX 2063
HARRISBURG, PENNSYLVANIA 17120
(717) 787-7381**

August, 1984

TRANSPORTER CONTINGENCY PLAN

INTRODUCTION

Act 97, the Solid Waste Management Act of 1980 and Chapter 75 of the Department's Rules and Regulations require transporters of hazardous waste to develop and implement a contingency plan to deal with emergencies affecting the environment, public health and safety resulting from an incident while transporting hazardous waste.

APPLICABILITY

These guidelines apply to transportation of hazardous waste, not generation, storage, treatment or disposal of hazardous waste. Transporters who generate, store, treat, or dispose of hazardous wastes must also prepare a Preparedness, Prevention, and Contingency Plan in accordance with the Department's "Guidelines for the Development and Implementation of Preparedness, Prevention, and Contingency Plans" when requested.

Pollution Incident Prevention (PIP) Plans prepared in conjunction with the Department's Water Quality Management program or other previously prepared emergency and prevention plans may already encompass some of the basic Contingency Plan elements, but are not acceptable as a Transporter's Contingency Plan.

SUBMISSION OF CONTINGENCY PLANS FOR REVIEW AND APPROVAL

Hazardous waste transporters are required to submit to the Department two copies of the Contingency Plan for review and approval when required during the license application process. If the Contingency Plan needs to be revised, prior to approval, two copies of the revisions shall be submitted to the Department for review and approval.

IMPLEMENTATION OF THE CONTINGENCY PLAN

The provisions of the Contingency Plan shall be implemented whenever emergency situations arise which endanger public health and safety or the environment as required by Section 75.263(g)(6).

REVISIONS TO THE CONTINGENCY PLAN

The Contingency Plan shall be periodically reviewed and updated if necessary. As a minimum, this shall occur when:

1. Applicable regulations are revised;
2. The plan fails in an emergency;
3. The mode of operation changes in a manner that materially increases the potential for fires, explosions or releases of hazardous constituents, or changes the response necessary in an emergency;
4. The list of emergency coordinators changes;
5. The list of emergency equipment changes; or

6. As required by the Department.

PREPARATION OF THE CONTINGENCY PLAN

Contingency Plans shall be prepared in accordance with good engineering practice by someone who is familiar with day-to-day operations of the applicant. If an outside consultant is employed for this purpose, he must be authorized to conduct a thorough study of waste handling and transportation practices.

PURPOSE OF THE CONTINGENCY PLAN

The purpose of a Contingency Plan is two-fold. First, it is a document which must be carried in the transport vehicle to provide information and direction to the driver during an emergency. Second, it is accepted by the Department as the transporter's written assurance that certain activities will be conducted in an acceptable manner. Therefore, it will necessary for you to repeat some sections of the "Sample Contingency Plan" verbatim to indicate that your company agrees to do these things.

FORMAT OF THE CONTINGENCY PLAN

Attached is a "Sample Contingency Plan". All items in bold type must be included in the plan as they are in the "Sample". Instructions are provided in regular type.

SAMPLE CONTINGENCY PLAN

EMERGENCY REPORTING

In the event of an emergency or a hazardous waste spill during transportation, the transporter will immediately notify the Department of Environmental Resources and the National Response Center with the following information required by 75.263(g)(1):

- 1. Name of the person reporting the incident.**
- 2. Name, address, and the EPA identification number of the transporter.**
- 3. Phone number where the person reporting the incident can be reached.**
- 4. Date, time and location of the incident.**
- 5. Mode of transportation and type of transport vehicle.**
- 6. A brief description of the incident, including the type of incident.**
- 7. For each waste involved in the spill:**
 - a. The name and EPA identification number of the generator of the waste.**
 - b. Shipping name, hazard class and UN or NA number of the waste.**
 - c. Estimated quantity of the material or the waste spilled.**
 - d. The extent of the contamination of land, water, or air.**
- 8. Shipping name, hazard class, and the UN or NA number of any other material carried.**

In the event of an emergency or hazardous waste spill during transportation, the transporter will immediately notify the affected municipality of the occurrence and the nature of the spill required by 75.263(g)(2).

The transporter will submit a report of the incident in writing as required by 49 CFR 171.16 to the Chief, Information System Division, Transportation Programs Bureau, Department of Transportation, Washington, DC 20590, and send copies of the report to the Department of Environmental Resources, and generator as required by 75.263(g)(5).

LIST OF EMERGENCY RESPONSE AGENCIES

The following are the minimum agencies and phone numbers to be listed:

**Pennsylvania Department of Environmental Resources
(717) 787-7381 (working hours)
(717) 787-4343 (after working hours)**

**Pennsylvania Emergency Management Agency
(717) 783-8150 (24 hours)**

**National Response Center
(800) 424-8802 (24 hours)**

**Pennsylvania Local Police and Fire Departments
911 or 0 (Operator)**

LIST OF EMERGENCY COORDINATORS

A minimum of two Emergency Coordinators must be listed. Provide name, address and home and office telephone numbers. Indicate who is the primary coordinator and who is the secondary coordinator.

At all times, there shall be at least one employee either on the installation's premises or on-call with the responsibility for coordinating all emergency response measures. The emergency coordinator shall be thoroughly familiar with all aspects of the Contingency Plan, all operations and activities, the characteristics of all materials handled and the location of all records. In addition, this individual shall have the authority to commit the resources necessary to carry out the Contingency Plan.

LIST OF EMERGENCY RESPONSE CONTRACTORS

If you list yourself, briefly describe the emergency response actions you will take. Also include a detailed list of your emergency response equipment under "Emergency Equipment". If you are not listing yourself, a minimum of two emergency response contractors must be listed (including address and phone number) as required by 75.263(g)(4) and a short description of their services provided.

The services of the emergency response contractors should be investigated and arrangements made for the prompt performance of contractual services on short notice. Equipment suppliers should be contacted to determine the availability and rapid delivery of equipment for removing pollution hazards by rapid clean-up.

EMERGENCY EQUIPMENT

Provide an up-to-date list of available emergency equipment. The list shall include the location, a physical description, and a brief description of the capabilities of each item on the list. Protective clothing including a filter mask or a gas mask and a first aid kit with eyewash apparatus must be carried on the transport vehicle as required by 75.263(h)(2). Absorbent material or mats must also be carried on the transport vehicle when liquids are transported in containers of 110 gallons or less as required by 75.263(h)(4).

A brief statement must be made concerning the maintenance and decontamination procedures of the emergency equipment listed above. An acceptable example is "All equipment shall be tested and maintained as necessary to assure its proper operation in time of an emergency. After an emergency, all equipment shall be decontaminated, cleaned, and fit for its intended use before normal operations resume."

EXTERNAL COMMUNICATIONS

Describe the communication system the driver will use to contact the emergency coordinator and/or notify the emergency response agencies as required by 75.263(h)(2)(iv) (i.e., public

phone, CB radio, 2-way radio). CB or 2-way radios are required if you are applying for licensure to carry acute hazardous wastes.

ROUTINE DECONTAMINATION PROCEDURES

Describe the routine decontamination procedures of the equipment used to handle hazardous waste. Equipment used to handle hazardous waste including but not limited to storage containers, processing equipment, trucks, and loaders that are contaminated with hazardous waste must be decontaminated prior to being serviced or used for any purpose other than transportation of compatible hazardous waste and prior to being serviced or used for transportation of non-hazardous waste, unless such wastes are compatible and are transported to a hazardous waste storage, treatment or disposal facility.

Where does routine decontamination occur? How? Describe the frequency. How is the rinseate or residual disposed as required by 75.263(h)(3).

EMPLOYEE TRAINING PROGRAM

Summarize your employee training program which must include the following:

1. Knowledge of the materials being transported.
2. Safety and health hazards associated with materials being transported.
3. Practices for preventing spills.
4. Procedures for responding properly and rapidly to spills.
5. Emergency procedures (i.e., use of contingency plan, first aid).
6. Use of emergency equipment.

Describe the ongoing training given to employees as required by 75.263(h)(1) (i.e., monthly review, yearly training course).

IMPLEMENTATION SCHEDULE

List any incomplete aspects of the contingency plan and a time schedule when they will be completed.