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Date
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Title

Underground Storage Tank Notification
An Implementation Handbook

Summary of Directive

This handbook is intended to provide assistance to the designated State agencies as they implement the underground storage tank notification program. This assistance is largely based on the experience of several States that have already carried out notification programs. The handbook includes ideas on organizing the program, distribution and collection of notification forms, and carrying out a public education program to encourage wide participation. Step-by-step guides and specific examples are included in this handbook.

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Signature of Lead Office Directives Officer

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Signature of OSWER Directives Officer

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Underground Storage Tank Notification

An Implementation Handbook

U.S. Environmental Protection Agency
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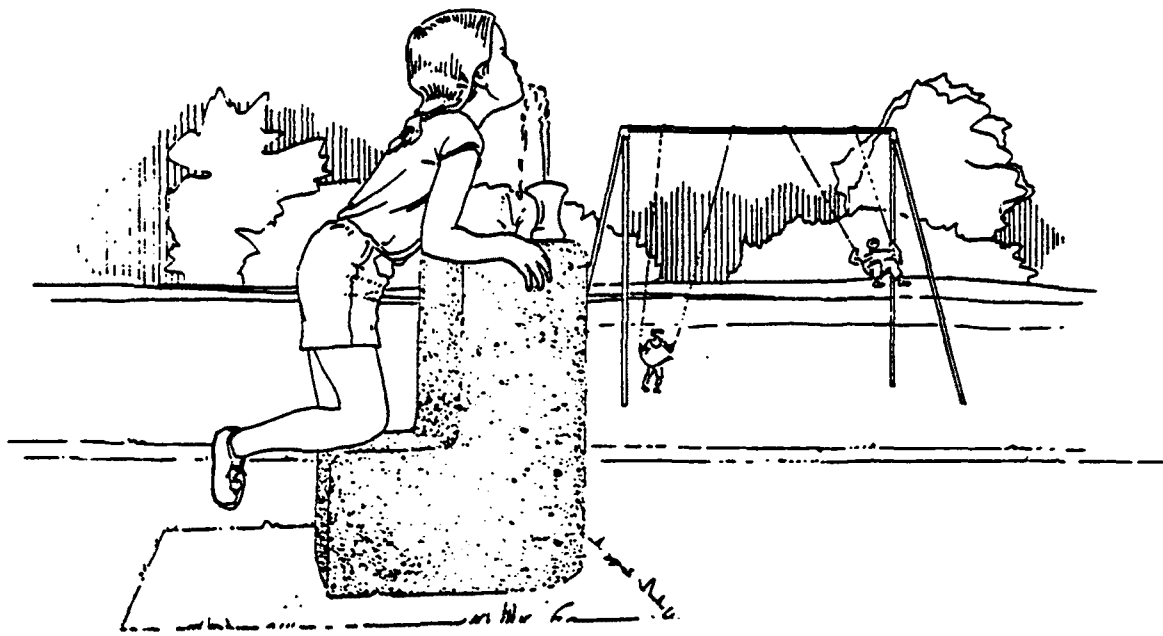
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CHAPTER 1

Introduction

THE PROBLEM

Recently, leaking underground storage tanks have been identified as a major potential source of groundwater contamination. In addition to possible damage to the environment and public health, leaking underground tanks cause product losses and are a potential liability to their owners. The total number of underground storage tanks (USTs) is not known, but EPA has estimated that there are over one million underground tanks used to store petroleum products and hazardous substances, and that thousands of these tanks are currently leaking. Up to one-half of the tanks now in the ground may leak over the next 10 years.

It is a matter of great concern to many States and local decision-makers that today no one knows where all these tanks are. As a first step in addressing the underground storage tank problem, therefore, Congress has mandated that each State conduct a notification program to identify the location and other basic information for their tanks. Congress also provided that EPA develop a notification form for use by owners of underground storage tanks and that State Governors designate State agencies to receive the notification forms.

THE PURPOSE OF THIS HANDBOOK

This handbook is intended to provide assistance to the designated State agencies as they implement the underground storage tank notification program. This assistance is largely based on the experience of several States that have already carried out notification pro-

grams. The handbook includes ideas on organizing the program, distribution and collection of notification forms, and carrying out a public education program to encourage wide participation. Step-by-step guides and specific examples are included in this handbook.

A NEW LAW

Congress has addressed the underground storage tank issue by adding Subtitle I to the Hazardous and Solid Waste Amendments of 1984. President Reagan signed the Amendments, which strengthen the provisions of the Resource Conservation and Recovery Act (RCRA), on November 8, 1984. Subtitle I provides for the development and implementation of a comprehensive regulatory program for underground tanks that store liquid petroleum products (including gasoline and crude oil) or substances defined as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or "Superfund." Appendix A provides the full text of Subtitle I.

Basic Provisions

The major requirements of Subtitle I are briefly outlined below:

- An Interim Prohibition on installing unprotected new tanks in the ground exists after May 1985.
- Underground storage tank owners must notify State or local agencies by May 8, 1986.
- EPA must promulgate regulations by 1987 on maintenance of leak detection systems

- corrective action
- closure procedures
- recordkeeping and reporting
- financial responsibility
- new tank design and operation.
- Federal enforcement authority is granted.
- States may apply for authorization to operate UST programs after May 1987.

Definitions

Underground storage tanks (USTs) are defined in the new law as "any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is 10 per centum or more beneath the surface of the ground." Several categories of underground storage tanks are, however, excluded under this program. They are:

- Tanks storing hazardous wastes regulated under Subtitle C of RCRA,
- Farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for non-commercial purposes,
- Tanks used for storing heating oil for consumptive use on the premises where stored,
- Septic tanks,
- Pipeline facilities (including gathering lines) regulated under
 - the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.),
 - the Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.), or
 - which are intrastate pipeline facilities regulated under State laws comparable to the provisions of law referred above,
- Surface impoundments, pits, ponds, or lagoons,
- Storm water or waste water collection systems,
- Flow-through process tanks,
- Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations, or
- Storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

As defined in the new law, regulated substance means "any substance defined in Section 101(14) of the Com-

prehensive Environmental Response, Compensation, and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under Subtitle C), and petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute)." Appendix B contains a list of CERCLA substances that are regulated under Subtitle I.

State Emphasis

Congress made it clear that it intended the States to be the implementers of the underground storage tank program of Subtitle I. This is evidenced by the fact that Congress provided that the States, not EPA, receive the notification forms from owners of tanks. Appendix C lists the State agencies that have been designated to receive the notification forms.

Beginning in May 1987, States may apply to EPA for approval of their UST programs to replace the Federal program. The State programs must include all the regulatory elements of the Federal program, be no less stringent, and provide for adequate enforcement. The new law does allow temporary approval of State UST programs that are less stringent in the areas of leak detection, recordkeeping, reporting, and closure. But to receive such temporary approval, State programs must be as stringent as the Federal program in the areas of corrective action, financial responsibility, and installation of new tanks. By May 1990, however, all approved State programs must be at least as stringent as the Federal program.*

Several States began their own notification programs for underground storage tanks even before the Hazardous and Solid Waste Amendments of 1984 were enacted. Other States had their plans for notification programs well underway before the EPA-proposed notification requirements were published in May 1985. For most States, however, the notification program that will take place between November 1985 and May 1986 is the first step in addressing the problems posed by underground storage tanks.

USING THIS HANDBOOK

The four chapters of this handbook describe the areas that need to be considered in organizing a notification program and lay out several alternative methods of implementation. In addition, each chapter

* Note: State programs may be more stringent than the Federal program in any or all requirements.

is supplemented by appendices that provide more detailed information to be used as needed.

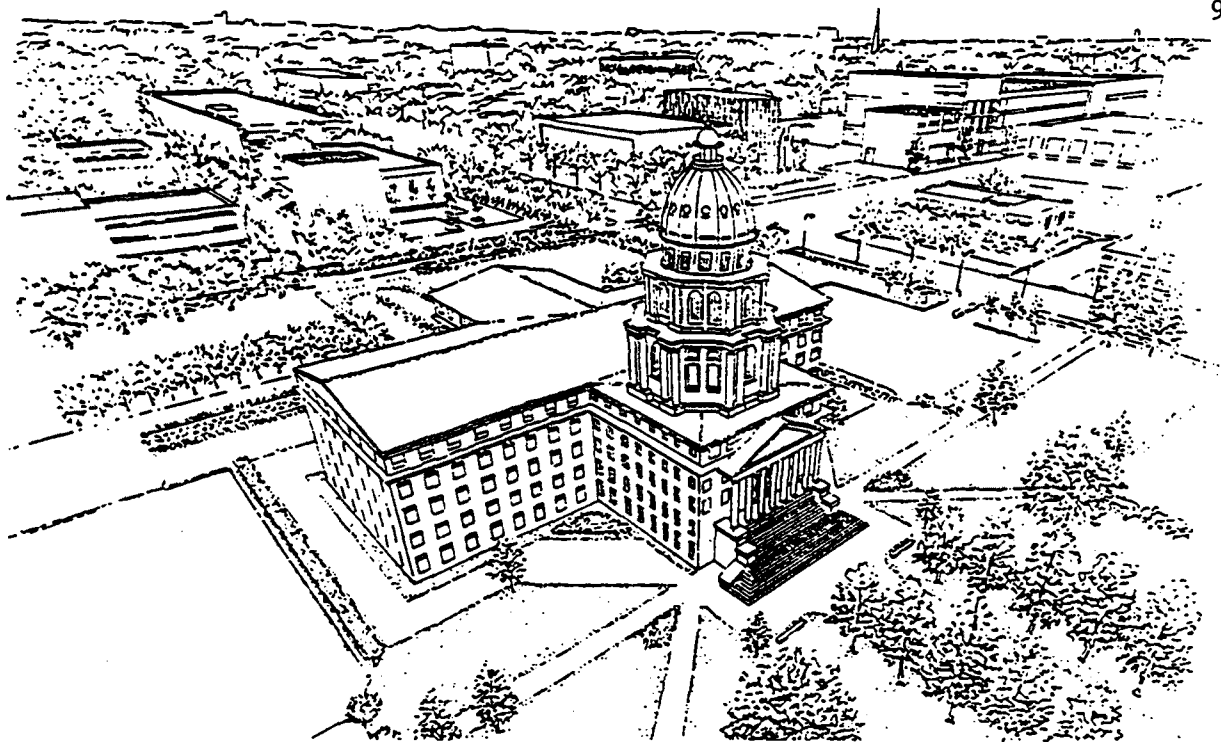
Chapter 1 discusses the leaking underground storage tank problem and provides an overview of the provisions of the law setting up the UST program. The complete text of Subtitle I, a list of underground storage tank regulated substances defined under CERCLA, and a list of all designated State agencies are included for your reference in Appendices A, B, and C.

A step-by-step guide to organizing an implementation program is the topic of Chapter 2. Much of the chapter is devoted to identifying potential underground storage tank owners, a large and diverse mixture of groups. Detailed references are provided in Appendix D, which lists categories of potential UST owners; in Appendix E, which provides extensive lists of poten-

tial contacts for UST owners; and in Appendix F, which provides example budgeting plans.

Chapter 3 provides information on the four general methods of form distribution: direct mail, mail-on-request, use of local pickup points, and distribution by other groups. Cost data for each method are included. More detailed information on carrying out mass mailings is included in Appendix G for your reference.

In Chapter 4, numerous methods of publicizing the notification program in your State are described. Examples of some frequently-used publicity tools, such as press releases, are included in the chapter. Cost information for the various methods is also provided. Some additional "how to" publicity information and more examples are included in Appendices H and I for your use as desired.



CHAPTER 2

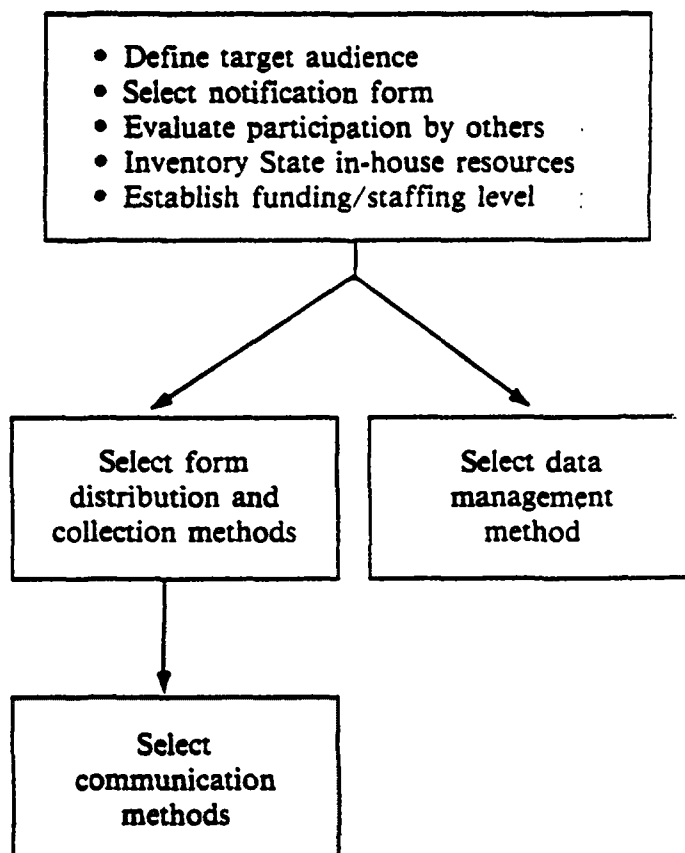
Organizing the Notification Program

ISSUES AND DECISIONS

If you have been selected to implement the notification program for your State, you will need to address many issues and make many decisions as you get organized. Some of the decisions will involve State policy on the entire underground storage tank program; many will involve details of implementation. A number of factors that may be unique to your State obviously should be considered before you select methods of distributing and collecting forms, communicating with underground storage tank owners, and processing the notification forms you will receive. The figure on this page lays out a typical decision sequence for putting together a notification program.

Defining the target audience of underground storage tank owners in your State is an important first step because it will give you some feeling about the scope of the upcoming tasks. Deciding whether or not to use the Federal form will determine printing and computer costs as well as staff time needed for form development.

Evaluating the desirability and availability of help from both in-house resources, such as State Public Relations Offices, and outside groups such as trade associations or the League of Women Voters will be important in moving to the next major step, the formulation of a budget. The level of funding and staffing that can be made available will be the decisive factor in determining: (a) the selection of forms distribution and collection methods (Chapter 3); (b) the selec-



tion of appropriate communications methods (Chapter 4); and (c) data processing methods.*

The rest of this chapter will address the early decision-making steps of the notification program.

DEFINE TARGET AUDIENCE

Underground storage tank owners represent an incredibly diverse mixture of manufacturing and service industries, wholesalers, retailers, institutions, and government agencies. The major categories of potential UST owners are briefly discussed in this section, along with some ideas on how to get in touch with central organizations to obtain preliminary information, lists, and other help.

Petroleum Retailers

Gasoline stations, the business category most often associated with underground storage tanks, represent a primary target audience. Gasoline stations may be owned by major oil companies, be franchisees of major oil companies, or be independently owned "Mom and Pop" businesses. Those owned or franchised by major oil companies will be comparatively easy to identify through the oil company or State or regional petroleum associations. Those owned by the major companies are likely to be very knowledgeable about the notification program.

Identifying independent stations will be much more difficult, but sources of information are available. Several associations, such as the Petroleum Marketers Association of America and the Service Station Dealers of America, represent independent service stations, but these station owners are often independent by nature and do not belong to associations. Trying to identify independent stations through the use of Standard Industrial Classification (SIC) Code** mailing lists may not be adequate because these lists are often based on telephone Yellow Pages, and independents may not advertise in the Yellow Pages. If your State has a Bureau of Weights and Measures or a gasoline tax, these may be your best and most complete sources for lists of service stations in your State.

Petroleum Producers, Refiners, and Wholesalers

Producers, refiners, and wholesalers are typically large businesses and their presence in your State is likely

to be common knowledge. These concerns often have full-time environmental staff to advise them on State and Federal regulations, and they will be able to give you information.

There are also several associations that represent these groups. Some of the larger associations and those with State chapters are listed in Appendix E.

SOME POTENTIAL UST OWNERS

- Gasoline stations
- Car, truck & boat fleets
- Petroleum wholesalers
- Petroleum producers and refiners
- Used oil recyclers
- Transportation services
- Automotive services
- Chemical manufacturing
- Metal & metal products manufacturing
- Service industries
- Farmers and ranchers
- Institutions
- Government agencies (local, State, & Federal)

See Appendix D for a more detailed list.

Transportation and Automotive Services

Transportation and automotive services can be either very small (such as car washes) or large (such as airports and bus depots). These businesses frequently store fuel for their transport vehicles in underground tanks. They may also store other regulated substances such as used oil and solvents.

Some of the transport services such as airlines, railroads, bus companies, and truck lines may be regulated or licensed. The licensing agency will likely be a good source of information on these businesses. Other, particularly smaller, businesses will be more difficult to identify or locate, but may be contacted through trade associations or by purchasing an SIC Code-based mailing list.

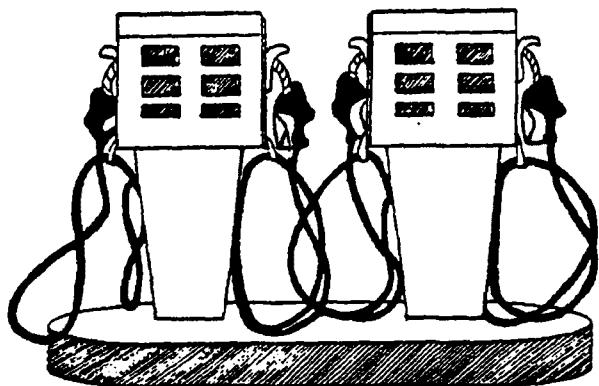
Car, Truck, and Boat Fleets

Fleets of cars, trucks, and boats are operated by both private businesses and public agencies. They frequently have underground tanks on-site to store fuel for their vehicles. This group is very diverse and includes such operations as the military, police, and laundry trucks, as well as car and truck rental agencies.

*EPA is developing computer software and data management training packages for States that wish to use them. State agencies will be receiving more information about this program.

**More information on the advantages and disadvantages of locating tank owners through SIC Code lists is in Appendix E.

Fleets operated by local, State, and Federal agencies can typically be contacted using in-house resources, but private fleets will be more difficult to reach. Appendix E lists associations that represent businesses likely to have large fleets of vehicles and government councils and associations that may be helpful in contacting public agencies with fleets of vehicles. There may also be other businesses unique to your State that have car, truck, or boat fleets.



Farmers and Ranchers

Farmers and ranchers that have motor fuel tanks smaller than 1,100 gallons used for noncommercial purposes are not subject to Federal notification requirements. Farmers and ranchers that have motor fuel tanks larger than 1,100 gallons or use them for commercial purposes will be subject to notification requirements.

There are associations for farmers and ranchers, but many are not association members. A better way to gather information may be through the U.S. Department of Agriculture Extension Service or the State Agricultural offices. Growers of certain commodities may have State associations, such as Citrus Mutual in Florida or the Kansas Wheat Growers Association.

Manufacturing Industries

Most manufacturing industries will have underground tanks that store raw materials, products, wastes, or fuel for operating process equipment. (In some cases, fuel for running manufacturing processes will be exempt from Federal requirements as a heating oil.) Chemical manufacturers and metal and metal products manufacturers are most likely to store regulated substances in underground tanks, but other manufacturing industries may also store them.

Appendix D contains a specific list of manufacturers that are potential UST owners. Some of these industries are clustered regionally and may not be found in your

State. Tobacco manufacturers are one example. Other industries, such as etching and electroplating firms, are more universal.

Institutions

Many institutions have underground tanks. Their tanks are often used to store heating oil and will be exempt; however, colleges, universities, hospitals, and prisons are likely to store gasoline or other regulated substances, too. There may be other institutions unique to your State that store regulated substances in underground tanks.

Service Industries

Service industries are a diverse group, ranging from amusement parks to funeral homes and pest control services. The regulated substances they store in underground storage tanks are also highly variable, and include gasoline, dry cleaning solvents, and pesticides. Some service industries do not have an SIC Code because they are primarily retail businesses. Associations of service industries that are likely to have USTs are listed in Appendix E. Other contact approaches should also be considered. For instance, morticians and pesticide applicators often are licensed by State or county agencies.

Appendix E contains further information on techniques for contacting groups of UST owners as well as extensive lists of national and State industry associations and public agencies.

Government Agencies

Most city and county governments as well as many State or Federal agencies have underground tanks for fuel and other uses. Transportation departments, building and plant maintenance offices, and business offices are important targets for UST notification. Federal agencies and Indian tribal governments will submit notification forms to the appropriate State agencies where they are located. Military installations are among the Federal agencies that will submit forms to your State agency.

SELECT NOTIFICATION FORM

Subtitle I of RCRA requires EPA to "prescribe the form of the notice" to be used by underground storage tank owners when notifying the designated agency. The notice is required to include the age, size, type, location, and use of each tank. The form developed by EPA and published in the Federal Register is shown on the next page.

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0049
APPROVAL EXPIRES 6-30-88

I.D. Number **STATE USE ONLY**
Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—
(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and
(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides, or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;

4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;

5. surface impoundments, pits, ponds, or lagoons;

6. storm water or waste water collection systems;

7. flow-through process tanks;

8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;

9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

Street Address

County

City

State

ZIP Code

Area Code Phone Number

Type of Owner (Mark all that apply ☒)

☐ Current

☐ State or Local Gov't

☐ Private or Corporate

☐ Former

☐ Federal Gov't (GSA facility I.D. no. _____)

☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here ☐)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest)

State

ZIP Code

Indicate number of tanks at this location

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐)

Job Title

Area Code

Phone Number

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

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.

Name and official title of owner or owner's authorized representative

Signature

Date Signed

CONTINUE ON REVERSE SIDE

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (Mark all that apply <input type="checkbox"/>) Currently in Use Temporarily Out of Use Permanently Out of Use Brought into Use after 5/8/86	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Estimated Age (Years)					
3. Estimated Total Capacity (Gallons)					
4. Material of Construction (Mark one <input type="checkbox"/>) Steel Concrete Fiberglass Reinforced Plastic Unknown Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Internal Protection (Mark all that apply <input type="checkbox"/>) Cathodic Protection Interior Lining (e.g., epoxy resins) None Unknown Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. External Protection (Mark all that apply <input type="checkbox"/>) Cathodic Protection Painted (e.g., asphaltic) Fiberglass Reinforced Plastic Coated None Unknown Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Piping (Mark all that apply <input type="checkbox"/>) Bare Steel Galvanized Steel Fiberglass Reinforced Plastic Cathodically Protected Unknown Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply <input type="checkbox"/>) a. Empty b. Petroleum Diesel Kerosene Gasoline (including alcohol blends) Used Oil Other, Please Specify _____ c. Hazardous Substance Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No. Mark box <input type="checkbox"/> if tank stores a mixture of substances d. Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Additional Information (for tanks permanently taken out of service)					
a. Estimated date last used (mo/yr)	/	/	/	/	/
b. Estimated quantity of substance remaining (gal.)					
c. Mark box <input type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

While most States plan to use the Federal form in their notification programs, other States have developed their own forms. The only requirement is that the State-developed forms be no less stringent than the Federal form. "No less stringent than" means that at least the universe covered by the Federal law (see page 1) must be covered by the State (States may register other tanks if they wish). The State form must address, at a minimum, the age, the size, the type, the location, and the use of each tank.

EVALUATE PARTICIPATION BY OTHERS

Your resources for the notification program can be augmented substantially by the participation of other State agencies, private associations, and various public groups. Marshalling these forces early in the program will allow for more realistic budget planning as well as a more successful project.

The Depositors' Responsibilities

One group that is mandated to assist the State is depositors of regulated substances. To ensure that owners of underground storage tanks are informed of their responsibility to notify, Congress has required anyone depositing regulated substances in underground storage tanks to notify the owners or the operators of such tanks of the owner's notification responsibilities.

When planning your program, it will be helpful to know how the depositors of regulated substances (for example, petroleum product jobbers) are planning to notify UST owners in your State. For example, a depositor may opt to leave a copy of the notification form with the owner or operator of the tank or he may advise tank owners of their notification responsibilities by printing a statement concerning the notification requirements on the delivery invoice.

After the U.S. EPA issues new tank performance standards, sellers of underground storage tanks must inform purchasers of the owner's notification requirements. Since the new tank performance standards are not expected to be issued before 1987, the tank sellers will not be of immediate help in the notification program unless they volunteer.

Participation by Other Groups

Other organizations in your State will also have a vital interest in the notification program, and may assist you with distribution of forms to and communication with the tank owners.

As mentioned previously, trade associations representing UST owners, depositors of regulated

substances, and tank sellers are an important resource and should be contacted early. Many national trade associations with members likely to own USTs are taking an active role in informing their membership of upcoming regulatory requirements. They will probably be glad to learn the details of your State program so they can provide accurate information to their membership. Those associations that will be assisting you by distributing notification forms will be especially interested in knowing what form your State plans to use.

Another important early contact could be the State Fire Marshal or other fire protection organizations. The National Fire Protection Association has a grant from EPA to assist in educational efforts for the UST program, and will be working through State Fire Marshals and local fire departments.

Local governments, environmental groups, and civic organizations are among the other groups that may be helpful with your program.

INVENTORY IN-HOUSE RESOURCES

A quick inventory of "in-house" resources can save you duplication of effort and a lot of staff time and funds. For example, there may be several other State agencies and offices within your agency that have regulated some sector of underground tank owners and thus have mailing lists or other useful information.

If your State has its own public relations staff, they may wish to be a major player in the notification program, which can save you a great deal of time, effort, and money. At the very least such an office will be able to help you in writing press releases, finding lists of newspapers in the State, etc.

Remember also that some State agencies may have their own underground storage tanks to service motor pools or for other purposes. These agencies should be encouraged to "lead the way" for the rest of the State by notifying early.

ESTABLISH FUNDING/STAFFING LEVEL

Implementing the notification program will require both staff time and direct expenditure of funds. You will find guidelines on typical costs of various activities throughout this handbook. The available funding and staffing level will have an impact, for example, on how extensive the public education program can be and which methods of forms distribution can be used. State budget allocations will also impact the types of activities possible. Some States will find that they have adequate staffing but very little money to pay for printing or travel; other States may experience the opposite.

EPA has established a grant pool of \$100,000 for each State that must be matched by 5 percent from the State. Another \$25,000 is available for States through EPA regional office discretionary funds.

For States using the Federal notification form, EPA will provide camera-ready originals bearing the State agency's name and address. EPA will participate in printing of the forms. In addition, EPA will supply to States at their request computer software and training for the processing of notification data.

Budget decisions are clearly pivotal and must be made as early as possible in the program. Appendix

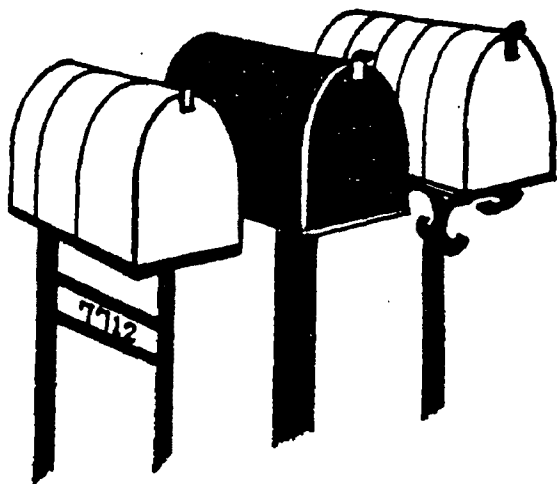
F presents an example budget estimation procedure based on generalized parameters for a typical Midwestern State.

THE NEXT STEP

When you have evaluated all of the factors outlined above, plus any other unique circumstances in your State, and have reached at least preliminary budget decisions, you can move on to a major decision point: What methods of forms distribution and collection will maximize participation by underground storage tank owners? This is the subject of the next chapter.

CHAPTER 3

Distributing and Collecting Forms



MAKING CHOICES

Getting the notification forms into the hands of the underground storage tank owners who must fill them out and return them to the proper State agency is a challenging undertaking. The effectiveness of the State form distribution and collection system, however, is the key to the success of the notification program. Making it easy for tank owners to obtain and return forms will clearly have a favorable impact on the number of underground storage tanks identified through the program.

Selecting the methods of form distribution and collection for your program is thus a fundamental decision point. This chapter outlines methods that have been used by other States. It also provides data you may need to make a good decision after taking into account those factors that are unique to your State or agency.

CONSIDER THE ALTERNATIVES

The general methods for distributing forms are: mailing directly to people whom you believe may own underground storage tanks; mailing out forms to people who request them by phone or mail; placing forms at local pickup points for tank owners to pick up; and distributing forms by other groups such as depositors

of regulated substances, trade associations, tank suppliers, or others.

A critically important point made by all States that have already carried out a notification program is that **no one distribution and collection system will reach all tank owners.** Methods that are effective in urban areas may be ineffective in rural areas. Methods that reach a well-defined universe, such as service stations, may be ineffective in reaching various manufacturing industries.

It is important to combine as many approaches as you can afford given the constraints of time, money, and staffing. At the very least, you will need to keep all of the various audiences you identified in the preliminary steps of your program (see Chapter 2) clearly in mind as you design your distribution and collection system.

The focus of form distribution activity will vary with the methods chosen. If a direct mail campaign is chosen as the primary distribution method, then your State agency will be performing most of the work from a central location. Likewise, mailing out forms in response to requests will be a centralized activity.

If placing forms at local pickup points such as fire stations or libraries is to be your primary means of form distribution, then the focus moves to the local sites. Your State agency will need to provide training, support, and followup if the local distribution points are to be effective.

Distribution of forms by other groups such as associations should always be considered a supplement to other efforts, since it is not likely that any one group will reach all UST owners. Petroleum product jobbers, for instance, will not reach chemical tank owners.

More information on the four methods of form distribution is given below.

DIRECT MAIL

If you choose to use this centralized method, you will need to put together a mailing list of people likely to be underground storage tank owners, plan the packet of information you will send out, and plan for return

STATE AGENCY
RETURN ADDRESS

Bulk Rate
U.S. Postage
P A I D
Permit No. ____
City, State

HAVE YOU COMPLIED WITH THE FEDERAL LAW?

YOU MUST NOTIFY US IF YOU HAVE UNDERGROUND TANKS!

COMPLIANCE DATE IS MAY 8, 1986

You are being sent this reminder because you operate a gas station or run a business likely to use underground storage tanks.

Federal law requires that all owners of underground storage tanks in (State) that are used to store or dispense regulated substances, must notify the State Agency by May 8, 1986.

This program is necessary because many underground tanks have been found to leak, threatening scarce groundwater supplies. In addition to possible damage to the environment and public health, leaking underground tanks cause product losses and are a potential liability to their owners.

To request notification forms or more information on program requirements, complete the back of this card and return it promptly. More information can also be obtained by calling 1-800-UST-INFO.

ADDRESS LABEL

Front of Postcard

Definitions:

UNDERGROUND TANK: Any one or combination of tanks that (1) is used to contain an accumulation of regulated substances and (2) whose volume, including connected piping, is 10 percent or more below ground.

REGULATED SUBSTANCES: Almost all chemicals and petroleum products including gasoline, diesel fuel, and industrial solvents. The law includes all substances defined as hazardous under CERCLA, except substances already regulated as hazardous wastes under RCRA.

EXEMPTIONS: (1) Farm and residential tanks of less than 1,100 gallons storing motor fuel for noncommercial purposes; (2) on-site heating oil storage tanks; (3) septic tanks; (4) pipelines regulated under other authorities; (5) surface impoundments, pits, ponds, or lagoons; (6) storm water or wastewater collection systems; (7) flow-through process tanks; (8) liquid traps; (9) storage tanks in an underground area (such as basement, but above the floor surface).

I WOULD LIKE THE FOLLOWING INFORMATION:

1. Please send information on the notification program.
2. We have _____ underground tanks. Please send notification forms.
3. We store the following chemicals, please send _____ forms if the chemicals fall under the legal definition of a regulated substance: _____

Please circle the applicable statements. Make sure your address is correct and return this form with the address label still attached.

STATE AGENCY
ADDRESS

Back of Postcard

Direct mail postcard based on one used by California.

of the forms. Mass mailing of notification forms is expensive, but the States that have used it to implement a notification program believe it to be effective. Florida feels that direct mail distribution of forms increased their response rate, because tank owners were apparently "psyched" into believing that the State already knew they had underground tanks.

Rhode Island used direct mail for communicating information on their notification program and a combination of mail-on-request and local pickup for forms distribution. They now feel that including the form with their educational material mailing would have increased their response rate.

In their implementation, California used an interesting postcard mailing that included a card that could be returned by tank owners to request forms. California has achieved a high rate of effectiveness in registering tanks using this along with other methods.

Several realities of a direct mail approach must be kept in mind, however. First, a great deal of staff time must be devoted to compiling lists, purging them of duplicative names and addresses, and actually addressing envelopes. Second, you must be prepared for the return of a substantial number of undeliverable packages. (Lists frequently are not kept up-to-date.) Third, for a wide variety of reasons you will find it impossible to reach all of your target audience by this method alone. Finally, you will unavoidably send notification packets to many people who do not own underground storage tanks, which is likely to generate at least some confusion.

Assembling the Mailing List

If direct mail is to be the chief method of forms distribution in your State, then it will be important to have as complete a coverage of tank owners as possible. (Reviewing the list in Appendix D should help to define these groups.) There are several possible sources of mailing lists:

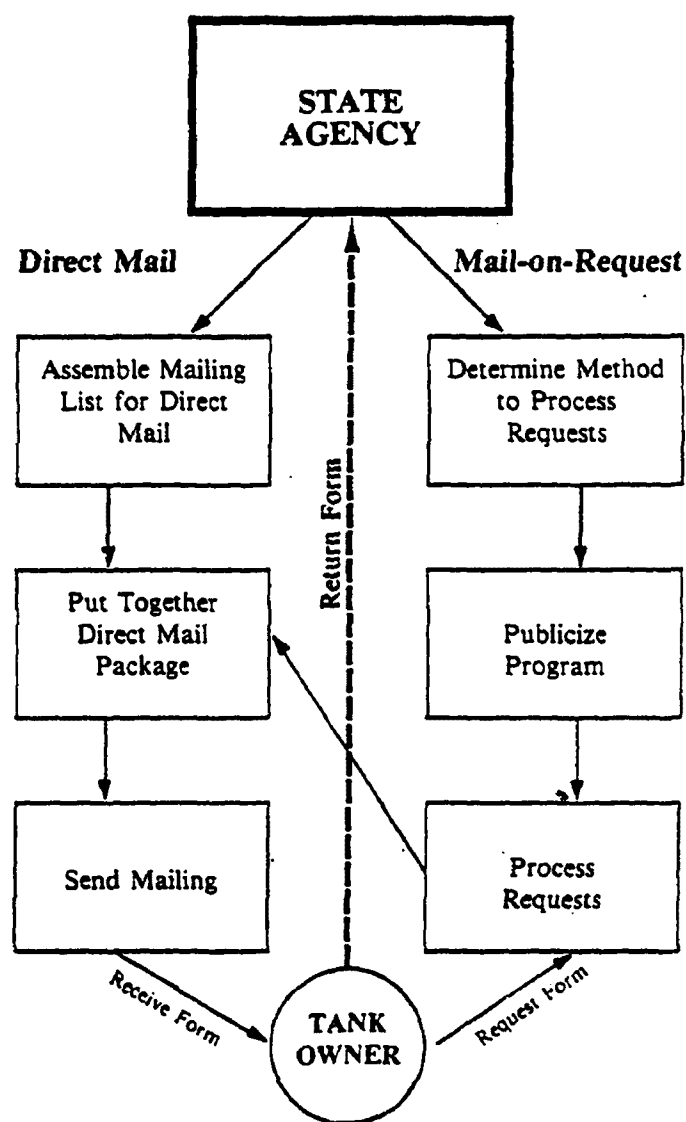
- In-house and other State resources
- Commercial mailing services
- Trade associations.

If mailing lists are obtained from more than one source, they can be merged together and duplicates can be eliminated. A review of in-house and other State resources can save much time and effort. Florida used a combination of lists from the Department of Agriculture (which checks gasoline pump meters); the Department of Natural Resources (marinas); the Bureau of Weights and Measures (retailers); the Department of Revenue (farmers and fishermen applying for gas tax refunds); trade associations; and a purchased

list based on SIC Codes. They then merged the lists by computer. Unfortunately, many of the addresses on the purchased list were incorrect, so checking quality is recommended before purchasing a list.

Trade associations in your State may be willing to share mailing lists with you. This should be determined early in the planning process.

For those interested in pursuing this approach, we have included a great deal more information on sending a mass mailing in Appendix G.



Centralized Forms Distribution Systems.

Putting Together the Package

In addition to the notification forms, your package for tank owners should include a cover letter or informational brochure describing:

- The benefits of the program



Office of the Governor

Madison Building, Capitol City, Anystate 12345

Dear Sir or Madam:

In 1984 the Congress of the United States adopted a new law that requires owners of underground storage tanks containing petroleum products and most chemicals to notify the State in which the tank is located concerning certain facts about the tanks. These notifications must be sent to the Anystate Department of Natural Resources in Capitol City by May 8, 1986. The Federal law carries penalties of up to \$10,000 per tank for failure to notify.

You are receiving this letter because you are in a business that is likely to use underground tanks. If you do not have underground tanks you need read no farther. If, however, you do have underground tanks, whether in operation or not, I request that you carefully read the enclosed brochure, which describes who must notify (there are several exclusions) and what information must be included. If this new law applies to your tank or tanks, please fill out the enclosed notification form and mail it to the indicated address. You may obtain more brochures and forms at your local fire station or by calling 1-800-UST-INFO.

I sincerely appreciate your cooperation in complying with this new law. Unfortunately incidents of leaking underground tanks are all too common. Knowing where the tanks are will greatly assist Anystate in giving quick response when ground-water problems are discovered. Protection of our natural water supply is vital to all citizens of Anystate.

Sincerely,

Thomas Adams

Thomas Adams, Governor
ANYSTATE

TA:sb

Enclosure

Example letter by Governor to accompany a mass mailing.

- The deadline for filing
- Where to return the forms
- Information on penalties for noncompliance
- How to get more forms
- How to get more information.

You may want to consider including a return envelope addressed to your agency. This will increase the response rate (and also the cost, of course).

If a cover letter is used, it should be on official letterhead signed by a well-known public official, such as the Governor. This will get the reader's attention and may help to overcome one of the most common failings of direct mail approaches, the "junk mail" look. For this reason, it is also important that the envelope has an official look so as to minimize the number of people who throw it away without even opening it.

If you decide to use a letter from the Governor (see example), it is probably a good idea to develop the letter early in your program because approvals for such letters can take a long time.

Sending the Mailing

Sending out the mailing will involve addressing the envelopes, assembling the package (letter and/or brochure, form, and return envelope if used), stuffing envelopes, and adding postage. It is possible to have envelopes addressed by a service or to purchase labels already addressed. The States that have implemented have done the work in-house, however.

Costs

Direct mail is an expensive method of form distribution. It does, however, maximize the number of forms received by tank owners. This method also may require less additional effort to inform tank owners, as compared to other methods such as mail-on-request and local pickup of forms.

Direct costs in addition to staff time for the activities mentioned above include copying, postage, purchasing mailing lists, and using computer time to sort lists.

MAIL-ON-REQUEST

Even if one or more of the other form distribution methods discussed in this chapter are chosen as the primary distribution method for your State, mail-on-request will serve as an important backup to get forms to many tank owners. Mail-on-request serves people who were missed in a direct mailing, for example, or

who are unable for some reason to pick up a form personally from a local distribution center. As you publicize your program, you should include a phone number and/or address where people can request notification forms.

In implementing their notification programs, California, Florida, and Rhode Island all had systems in place to respond to requests for forms. California sent out a postcard that could be returned to request forms and registered 30,000 to 40,000 tanks by that method (about 25 percent of total registration). In Rhode Island, mail-on-request accounted for about half of the forms distributed.

Although mail-on-request can serve as a primary distribution method, it does have the disadvantage of relying on the tank owner to initiate the notification procedure after hearing about the program through the State's publicity campaign. The expenses associated with this form distribution procedure are moderate, however, when compared to other methods. In addition, it has the major advantage of being quickly implemented. As soon as public education materials are developed (see Chapter 4), you can begin to "spread the word" and process requests for information and forms.

For this method of forms distribution, you will need to allocate the bulk of your resources for publicity and telephone response. The time and costs for developing informative materials about the notification program are addressed in Chapter 4.

LOCAL PICKUP POINTS

Leaving notification forms at conveniently located and heavily publicized points where tank owners can pick them up is another alternative to consider. This method can be used instead of, or in addition to, a direct mail effort. Placing forms at designated pickup locations is a relatively inexpensive method of form distribution, and for this reason quite attractive. Setting up such a program will, however, require a high degree of up front organization in order to prepare personnel at local pickup points to act as forms distribution centers.

For the public, there are drawbacks to this method similar to those associated with the mail-on-request method. Underground tank owners must be motivated by publicity concerning the program to go to local distribution centers to pick up forms. Another drawback is that there will be people who find it difficult or impossible to travel to any location to get forms. An obvious example is absentee or out-of-state

owners. Alternate methods such as mail-on-request should be provided to get forms to that group of underground tank owners.

Organizing the Program

If you elect to use this distribution method, you must:

- Determine which organizations have offices located throughout the State
- Secure the cooperation of the central office or official (e.g., the State Fire Marshal)
- Develop educational materials
- Educate the staff at the pickup points
- Plan for delivery and return of the forms
- Inform tank owners of the pickup locations.

Some locations from which forms can be distributed include:

- Fire stations
- City and county offices
- Regional offices of the designated State agency
- Local health departments
- Public libraries
- Offices of building inspectors.

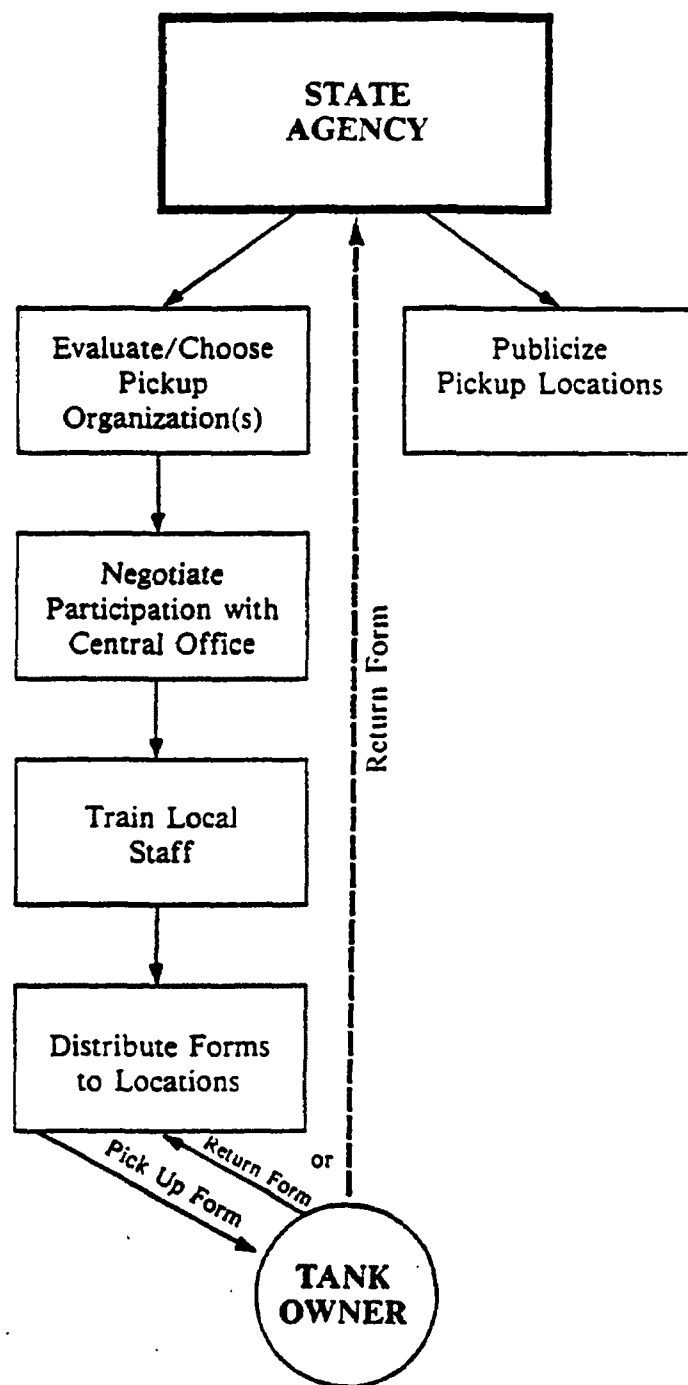
Local pickup points for forms were used by all three States that have completed implementation. Rhode Island distributed forms at fire stations, California used city and county offices, and Florida left forms at building inspectors' offices. Rhode Island distributed about half of their forms in this manner, and about half by mail-on-request. California and Florida, which are much larger States, used direct mail and mail-on-request as their principal means of form distribution, with local pickup as a supplementary method.

Choosing the Organization

Two criteria are paramount when choosing the organization or organizations (more than one may be necessary) to distribute your notification forms to the public:

- The organization must have clearly-recognizable local offices in almost all parts of the State. (In this context, fire stations and libraries are probably to be preferred over health departments or building inspectors' offices.)
- The organization must have a central office (preferably located in the same city that you are) that can commit the participation of the entire organization around the State and that has the means to communicate with their local offices on a frequent basis.

Once you have determined which organizations best



Localized Forms Distribution System.

fulfill the above criteria, you must, of course, persuade them to participate. This can sometimes involve a great deal of time and effort. Once it is accomplished, you and the leaders of the selected organizations must form a close partnership and remain in almost daily contact until the project is completed.

Training Local Staff

One of the most important aspects of the partner-

ship with organization leaders will be the development of training materials for the local staff that will actually carry out the program. It may be that the central office of this organization has carried out this type of effort for other programs and will only need your input on the specifics of the notification program.

If the organization does not have this kind of expertise, you will have to develop training materials for the firemen, city or county employees, etc., at the sites so that they can answer questions or direct tank owners to the proper authorities for answers. Probably the lowest-cost training method would be to mail out a short letter (on the central organization's stationery) explaining where to refer tank owners with questions, and how to notify the State when the form supply is low. A more thorough, and also more costly, form of training would be to conduct training sessions or seminars to teach the staff at the pickup locations how to answer questions regarding the forms. If your agency has regional offices throughout the State, the regional staff might provide training fairly economically.

Delivery and Return of Forms

Forms can be delivered to pickup points by mail or delivery truck, or State employees could deliver them. Parcel post would be the cheapest method for most States. In Rhode Island, the State Fire Marshal was a member of the State committee for the tank program, and he took responsibility for distributing forms to the fire stations.

Tank owners could return completed forms to the distribution point. (You would need to provide pre-addressed and pre-stamped large manila envelopes or boxes to each site.) It is probably more practical to have the tank owners mail the completed forms back to you. As with the direct mail method, if you can afford pre-stamped envelopes you will get a higher response rate.

Publicity

If you plan to use local pickup points as the main type of form distribution in your State, then informing tank owners through a well-designed public education program is a most important key to success. There are many ways to do this, and the next chapter of the handbook discusses some of them.

DISTRIBUTION BY OTHER ORGANIZATIONS

Many other organizations have a strong interest in the notification program, and some may help with forms distribution. In your initial planning, you will

need to determine how these organizations in your State can or will help you. Their help should be considered a desirable supplement to the primary methods of form distribution. Contact with other interested organizations is especially important if your State has developed its own form, so that tank owners will receive consistent and accurate information. (National organizations may heavily publicize the Federal form.)

If you do rely on other groups to distribute notification forms, it is important to make clear that the forms are to be returned to your agency and to make sure the groups are well informed on the program.

OTHER GROUPS MAY HELP

- Depositors of Regulated Substances
- Trade Associations
- Tank Sellers
- Environmental Organizations
- Community Groups

Depositors of Regulated Substances.

The Federal law (Subtitle I) requires depositors of regulated substances in underground storage tanks to "reasonably notify the owner or operator of such tank of the owner's notification requirements...." The law does not, however, require the depositors to distribute notification forms.

Many of the States already planning notification programs do intend to ask bulk distributors of regulated substances to cooperate by distributing forms, and at least one State is planning to require bulk distributors to leave forms with their customers.

Trade Associations

Trade associations representing owners of underground storage tanks, sellers of tanks, and depositors of regulated substances have a vital interest in this program. You may find these groups quite willing to help with form distribution, especially those associations that have active State or regional chapters. However, national associations should not be completely ruled out. Most have the ability to list members within a given State, and in the case of small or specialized trade groups, they may be the best contact. Appendix E contains a list of trade associations that are likely to have members who own underground tanks. Associations known to have State or regional chapters are designated.

In their implementation programs, Rhode Island and California were both assisted by local associations; Rhode Island relied on them quite heavily. Associations used in Rhode Island included: the American Petroleum Institute, Ocean State Petroleum Retailers, an association for fire chiefs, and the League of Cities and Towns. Associations mentioned by other States have included: State Independent Oil and Gas Associations, State Associations of service station dealers, Chemical Manufacturers Association, Citrus Mutual, petroleum jobbers, and Chambers of Commerce.

The use of trade associations to distribute forms may be a real cost-saver for putting together a mailing list and for distributing forms, particularly if they pay the postage. Compliance may be increased by the simple availability of the forms, in contrast to owners having to make requests for forms or having to go somewhere to pick up forms. As has been mentioned earlier, however, thousands of tank owners are not members of any association, so other methods must be used by your State to reach these people.

Tank Sellers

Subtitle I of RCRA requires sellers of underground storage tanks to notify the purchaser of the owner's notification requirements. The Federal requirements for tank sellers, however, will not go into effect until 1987.

You may want to contact tank sellers and their trade associations in your State to determine if they will help with form distribution on a local basis, even though they have no Federal requirement to do so.

Others

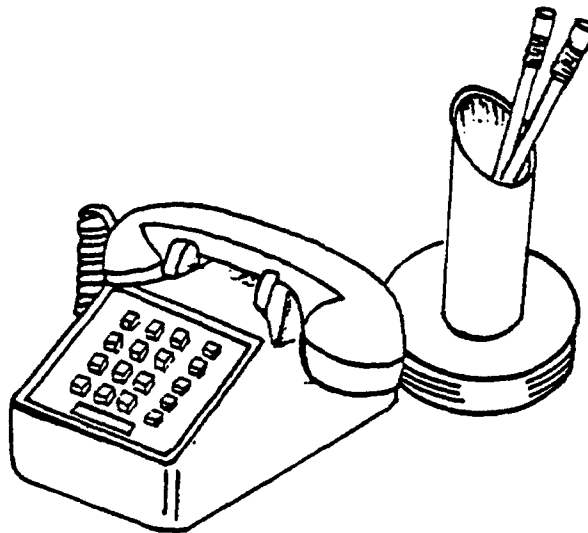
Depending on local circumstances, you may find other groups willing to help distribute forms. Groups that have been suggested include environmental organizations, the League of Women Voters, and Boy Scout Troops. Some environmental groups are listed in Appendix E.

TOLL-FREE TELEPHONE NUMBER

No matter what primary method of form distribution you choose, you can expect to receive numerous calls from tank owners seeking information and asking for forms. Rhode Island, for instance, received many calls as their program was publicized, and they either directed people to pickup points at fire stations or mailed forms if requested to do so.

While it is not necessary to have a toll-free number, most State personnel surveyed felt that the response would be higher if people did not have to pay to call.

The "800" number is designed to allow a long-distance caller to call toll-free with the cost for service paid by the party being called (your agency).



The "800" number is supplied by the Bell System for calls originating from within the States. AT&T furnishes a separate "800" service for calls originating outside the State. Since most tank owners would call from within your State, the interstate "800" number would probably not be needed.

There are two types of costs associated with the special phone service. The first is the cost of the phone service itself, which varies from State to State; the second is the staff time required to respond to the phone inquiries and train phone personnel.

The staff requirements for answering the phone will vary with the method selected for implementation. If the telephone is to be the primary method for requesting notification forms, then a large number of calls may be made in a short time period. In this case it may take several phone lines and several people to respond to the calls.

In Florida, an 800 number was installed to handle calls during the State's three-month notification period. During this time, Florida received approximately 200 calls per month concerning notification requirements. Less than 10 percent of the calls were from persons with questions about the notification program, while 65 percent of the calls were from persons requesting forms.

In California, although an "800" number was not used, six summer student employees and as many as eight regular staff members were used to answer inquiries about their tank registration program. (California has registered approximately 150,000 tanks.)

If the telephone is used primarily for solving prob-

lans, then fewer people are needed, but they should be qualified to answer detailed questions regarding the notification forms. It is suggested that the "800" line be reserved for short phone conversations to allow access for the maximum number of callers. If necessary, an operator can take the name and number so that a qualified staff member can call back on another line to help solve complex problems.

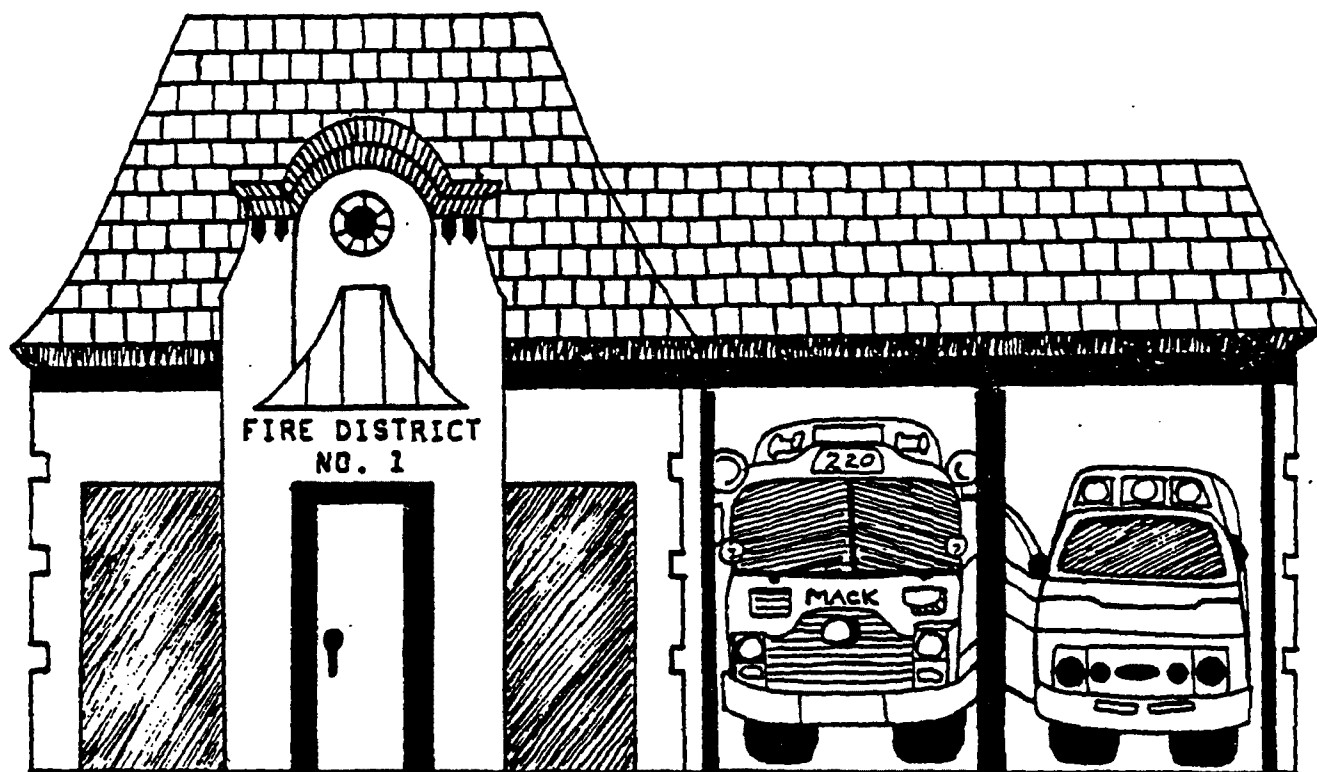
SUMMING UP

Various combinations of form distribution methods—direct mail, local pickup, mail-on-request, and assistance from other groups—have been used by the States that have already implemented a notification program. The three States that have this experience all

achieved good response rates. It can therefore be concluded that any of these methods will work, and that some combination of all methods is desirable.

The table on page 20 shows some comparative costs for the various form distribution and collection methods. A detailed calculation methodology along with assumptions used to estimate costs for three different-sized States is included in Appendix F. By "plugging in" parameters for your own State, you can estimate your costs for any combination of methods.

In planning your own program, you will need to select a distribution system that matches your State's characteristics and budget. The next step is to plan appropriate communication methods to publicize the selected distribution systems.



ESTIMATED COSTS FOR VARIOUS FORM DISTRIBUTION METHODS

Method/Assumptions	Staff Time (Hours)			Direct Costs (\$)		
	Low	Medium	High	Low	Medium	High
Direct Mail (Includes a 3-page mailing; purchased and State agency mailing lists; pre-sorted postage.)	52	88	168	2,100	13,300	23,000
Mail-on-Request (Includes 3-page mailings to all UST sites in State by First Class mail; staff time to answer phone.)	500	1,800	3,000	350	2,200	4,400
Local Pickup Points (Includes at least one pickup site per county; regional training of on-site personnel.)	88	136	156	170	650	800
Toll-free Telephone Number (Includes one line for 6 months; staff time to answer phone.)	260	980	1,920	1,200	5,720	10,000

The low range represents a State with a population of 800,000, 16 counties, and 5,500 USTs; the medium range, a State with a population of 5,500,000, 92 counties, and 35,000 USTs; and the high range, a State with a population of 10,800,000, 88 counties, and 70,000 USTs. See Appendix I for details.

CHAPTER 4 Communicating Notification Requirements



MOTIVATING TANK OWNERS

To achieve a successful underground storage tank notification program, you must make the tank owners in your State aware of their responsibilities and motivate them to participate. The two classic motivation methods are "the carrot and the stick." In this case, the "carrot" is the benefits of the UST program: protection of our environment and possibly product savings and decreased liability for tank owners. The "stick" is the Federal penalty of up to \$10,000 for each tank if notification is not given, plus any additional penalties in your State.

Your communications program thus must inform tank owners of their notification responsibilities, tell them how to obtain and return forms, and motivate them to act.

Subtitle I of RCRA requires two groups to notify underground storage tank owners of their notification responsibilities—those who deposit regulated

substances in underground storage tanks and those who sell underground storage tanks (the latter not until 1987). Most States have indicated a conviction that additional publicity will be required to achieve a high response rate.

SEEKING ASSISTANCE

If your State has a public relations or public education department, they should be contacted immediately to determine what role, if any, they are able to play in publicizing the program. They may wish to essentially run it themselves (with your input), or they may volunteer to take over certain specific functions such as writing and distributing press releases. Perhaps they may only be able to advise you on names and phone numbers of key individuals such as newspaper editors. Whatever their role, public information professionals can be a valuable asset in reaching the diverse audience impacted by the UST program.

METHODS TO CONSIDER

The methods of form distribution and collection you have selected will help determine the level of publicity you need. If your program requires tank owners to take some positive action—picking up forms in person or calling to obtain forms—then it is particularly necessary to have a strong information program. The States that have implemented notification or other, similar programs generally feel that a combination of several communication methods is the best approach.

COMMUNICATION METHODS TO CONSIDER

- Press releases
- Fact sheets, brochures, and journal articles
- Speeches
- Radio and television announcements
- Newspaper advertising
- Other methods

DEPARTMENT OF NATURAL RESOURCES
400 Main Street
Capitol City, Anystate 12345

PRESS RELEASE

CONTACT: John Smith
1-800-UST-INFO

FOR RELEASE: December 6, 1985

UNDERGROUND STORAGE TANK NOTIFICATION UNDERWAY

CAPITOL CITY - Thousands of Anystate owners of underground storage tanks containing gasoline or other regulated substances will soon be receiving forms that they must use to notify the Anystate Department of Natural Resources of details regarding their tanks. This notification program, which must be completed by May 8, 1986, is part of the Resource Conservation and Recovery Act Amendments enacted by the U.S. Congress in 1984.

Concern about contamination of the nation's ground water, widely used for drinking and other domestic purposes, and environmental damage caused by leaks of petroleum products and other hazardous chemical substances prompted last year's legislation. The U.S. Environmental Protection Agency was required to develop the notification forms, which are being distributed and collected by the DNR.

Under the new law, storage tanks are defined as "underground" if 10 percent or more of the tank, including piping, is beneath the ground. Farm and residential motor fuel tanks are exempted unless they are larger than 1,100 gallons. On-site heating oil storage tanks, septic tanks, and certain other tanks are also exempted. The new law applies to liquid petroleum products and all substances defined as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. This includes almost all chemicals, including industrial solvents. The notification requirements apply not only to underground storage tanks currently in use, but also to tanks taken out of operation after January 1, 1974, but still in the ground.

To enforce the notification requirements, Congress provided for a penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

If an underground storage tank owner has not received his notification forms, or if additional information is needed, the DNR has provided a toll-free number (1-800-UST-INFO) to call. Forms may also be obtained by writing to John Smith, Department of Natural Resources, 400 Main Street, Capitol City, Anystate 12345.

#

Example press release early in the notification program.

This chapter outlines some time-tested communications methods you should consider. Because some States will not have the benefit of input from a public education office, all methods are discussed in some detail. Additional information and references for the various communications methods are included in Appendix H.

PRESS RELEASES

A press release is the most basic method of communicating information to the general public through the news media—newspapers, magazines or newsletters, radio, and television. If the press release contains information that is newsworthy and interesting, it will be used by many editors and station managers. It is generally recognized that a news item in a newspaper will reach a larger audience for less cost than in any other medium.

The States that have implemented UST-notification programs have used press releases to at least some extent, and other States have indicated that they intend to use press releases extensively.

California, one of the States that has implemented an underground tank registration program, used a staged approach for its press releases. A lengthy release went out when the program was announced by the head of the responsible agency. Then 10 days before the registration deadline, a two-page press release was issued. California had a "grace period" on registration before fines went into effect, and two more press releases a month apart announced that deadline also. After that deadline had passed, another press release announced the number of tanks that had been registered. Thus a considerable amount of publicity was generated through a series of press releases rather than just one, which could be missed by many in the target audience.

This is a particularly important area in which to have input from your State public relations office. Their expertise will allow you to reach those who decide which stories are newsworthy in your State. They will have access to lists of newspapers, radio stations, and television stations to which press releases can be sent. If these lists are not available, they can be developed through the use of directories, which should be available at any large library. (A list of directories is included in Appendix H.)

In addition to the commercial media, you can send press releases to the newsletters of trade associations, environmental groups, and other community organizations.

Format

While there is no one "correct" way to write a press release, there are some generally accepted guidelines, which are listed below.

- Keep each press release to one or two pages.
- Type press releases double spaced on 8½ by 11-inch paper.
- Use your Agency letterhead and type the name and telephone number of a contact person in the upper left-hand corner.
- Type FOR IMMEDIATE RELEASE and the mailing date or FOR RELEASE (date) in the upper right-hand corner.
- Leave several lines of space and type a short, descriptive title. (This will probably be revised by an editor and can be omitted.)
- Begin with a dateline (the city) as the first word in all capital letters.
- Write the first paragraph so that all important points are included. Remember the "Five Ws"—who, what, when, where, and why. The following paragraphs should add details in descending levels of importance.
- Type "more" at the bottom of the page if there is more than one page. Type the title and "continued" at the top of the next page.
- Type "-30-," "###," or "End" at the end of the release.

Example press releases are shown in this chapter for your use as guides if needed. These should obviously be modified to reflect the situation in your State. For example, the press releases included here are written for States using the Federal notification form. The press releases must also be tailored to reflect the methods of distribution and collection of forms being used in your State.

Photographs and Press Kits

Your press releases may attract more attention if they are accompanied by photographs or press kits. Many newspapers, especially the larger ones, will prefer to take their own photographs and write their own stories. Sending additional information in a press kit will help reporters by providing good background information. More details on preparing photographs and press kits to accompany press releases are included in Appendix H.

Costs

While publicity generated by news releases is "free" in the sense that no charge is made by the newspaper

DEPARTMENT OF NATURAL RESOURCES
400 Main Street
Capitol City, Anystate 12345

PRESS RELEASE

CONTACT: John Smith
1-800-UST-INFO

FOR RELEASE: April 1, 1986

UNDERGROUND STORAGE TANK NOTIFICATION DEADLINE NEARS

CAPITOL CITY - Barbara Jones, head of the Anystate Department of Natural Resources, has reminded owners of underground storage tanks storing hazardous substances in Anystate that only 30 days remain for submitting notification forms to the DNR before the May 8, 1986 deadline. Jones said that the State had already received 6,000 notification forms. Forms are available at fire stations around the State. The completed forms must be returned to the DNR in Capitol City.

The notification program is required by 1984 Amendments to the Resource Conservation and Recovery Act enacted by the U.S. Congress. Concern about contamination of the nation's ground water, widely used for drinking and other domestic purposes, and environmental damage caused by leaks of petroleum products and other hazardous substances, including most chemicals, prompted last year's legislation.

The notification requirements apply not only to underground storage tanks currently used to hold regulated substances, but also to tanks taken out of operation after January 1, 1974, but still in the ground. Under the new law, storage tanks are defined as "underground" if 10 percent or more of the tank, including piping, is beneath the ground. Farm and residential motor fuel tanks are exempted unless they are larger than 1,100 gallons. On-site heating oil storage tanks, septic tanks, and certain other tanks are also exempted. The new law applies to underground storage tanks that hold liquid petroleum products or substances defined as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund).

To enforce the notification requirements, Congress provided for a penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

Underground storage tank owners who would like to receive their notification forms by mail, or who need additional information, should call 1-800-UST-INFO or write to John Smith, Department of Natural Resources, 400 Main Street, Capitol City, Anystate 12345.

(end)

Example press release as notification deadline nears.

or broadcast station, a cost is involved in the preparation and distribution of the releases. Staff time will be required for writing the releases, assembling a media mailing list, and folding, stuffing, and addressing envelopes. Direct costs for press releases include copying, envelopes, postage, and photographs (if used).

FACT SHEETS, BROCHURES, AND ARTICLES

Fact sheets, brochures, and journal articles can play an important role in your communication program. Possible uses for fact sheets or brochures include:

- Distribution in press kits
- Distribution by speakers or others at meetings, briefings, press conferences, workshops, or seminars
- Mailing out in response to telephone inquiries
- Mailing out as part of a direct mail program.

The target audience for these materials could thus be the tank owners themselves or others who may help to inform them, such as the press.

California used a brochure in publicizing its notification program, along with a variety of other methods. The brochure was mailed out, handed out at meetings, and otherwise distributed in person.

Journal articles generally have much the same content as fact sheets and brochures, but in an expanded form. You will probably have the best results with articles if they are targeted for a specific publication or a category of publications, such as those related to the petroleum industry.

Costs for a fact sheet include staff time for preparation and direct costs for copying. A brochure is generally more elaborate, requiring more time to prepare and professional printing as compared to routine copying.

Costs for a journal article would be similar to a fact sheet, but more time would probably be involved for preparation, and more direct costs for copying and postage.

Examples of a fact sheet, brochure, and journal article are included in Appendix I.

SPEECHES

Speeches are always an effective way to communicate and you will almost certainly want to use this method in some manner. All the States that have implemented a notification program used speeches to communicate with tank owners and other interested parties.

In implementing their program, Florida used "canned" speeches by Department of Environmental Regulation personnel extensively. They held 15 to 20

seminars around the State, each including a four-county area. Attendance at these seminars ranged from 10 to 250. Rhode Island held public forums during their implementation process. These not only informed the people who attended, but also generated coverage in the press. Both States rated these efforts as successful. California personnel made public appearances before trade associations and also spoke at seminars put on by consultants.

In order to use staff time efficiently, it is important to "target" speeches to those groups most likely to include underground tank owners. Appendix E lists pertinent national associations that have regional, State, or local chapters that you may wish to contact for speech opportunities. Some events where these groups can be reached are listed below and described in more detail in Appendix H. Any of these could be useful locales for your speeches.

SPEECH OPPORTUNITIES

- | | |
|-------------|-----------------|
| • Briefings | • Conferences |
| • Workshops | • Public forums |
| • Seminars | • Meetings |

When properly educated, people other than your State agency personnel can be used very effectively for these speeches. Examples include fire department personnel, agricultural extension agents, personnel from State agencies, and trade association members. Local, city and county officials can also be important communicators for your program.

If you, like the other States, plan to use speeches extensively, you may want to develop some visual aids such as a slide show or overhead transparencies. A videotape is a more costly alternative that some States are considering. More information on visual aids is included in Appendix H.

Staff time will be required to prepare speeches and visual aids, and to travel and present speeches. Direct costs for travel and preparing visual aids will also be incurred.

An example speech and speech outline are included in Appendix I.

RADIO AND TELEVISION

The broadcast media—radio and television—offer several possibilities for publicizing your notification program:

- News programs
- Public affairs programs
- Public service announcements
- Commercials.

Of the three States that have implemented notification, only California used radio and TV spots. Florida and Rhode Island did not, although a Florida representative felt they might have been useful. There have been suggestions that radio is a good way to reach people in isolated areas. For example, farmers may listen to certain stations that broadcast market and weather reports aimed at their needs.

News Programs

When you prepare press releases for the newspapers in your State, you can send them to radio and TV stations also. Radio stations typically have brief news programs that may reach a different audience than newspapers or TV. Frequently a radio or TV reporter will call the contact on the press release for more information, and may record some statements for use on a news show.

The cost of preparing press releases was discussed earlier in this chapter.

Public Affairs Programs

If the public affairs director of a television or radio station thinks the tank notification program would be of interest to their audience, someone from the State could be invited to be on a public affairs program. This could be a talk show or interview, a panel discussion, or perhaps a program where listeners phone in questions. This will provide a good opportunity for you to reach additional tank owners.

The cost to appear on a public affairs program will be nominal, involving only staff time and any travel costs incurred.

Public Service Announcements

Radio and television stations are licensed by the Federal Communications Commission (FCC) and they must provide air time for public service programs as part of the licensing requirements. Most stations have a public affairs director who coordinates these activities. Public service announcements (PSAs) thus offer a relatively easy and economical way to reach a large audience.

This chapter includes three example PSAs for use by radio stations and three for television station use. These PSAs vary in length and are timed to use 20 seconds, 30 seconds, or 60 seconds of reading time.

The examples for use on television include suggestions for slides to accompany the announcements. Further suggestions for preparing PSAs are included in Appendix H.

**UNDERGROUND STORAGE TANK OWNERS
MUST NOTIFY
THE DEPARTMENT OF NATURAL RESOURCES

CALL

1-800-UST-INFO**

Example slide for television PSA.

If you plan to use PSAs, staff time should be allocated for writing the announcements and mailing them to the stations. Preparation time and direct costs are similar for radio and TV PSAs, except that slides must be prepared for TV. Other costs will include copying and postage.

Commercials

If your State has a sizeable budget, commercial time can be purchased to air the notification message. None of the States that have implemented underground tank notification programs purchased commercial radio or TV time. The State of Florida did suggest that announcements on the early farm report might have been helpful for communicating with small and rural businesses.

One advantage of commercial announcements is the ability to control the timing. For instance, it is known that radio has more listeners during morning and evening "drive times." (The commercial rates are highest then, also.) Commercials can be spaced out so that listeners will probably hear the same message several times.

Another advantage of radio commercials is the ability to target the audience to reach more of the desired listeners, such as tank owners. Appendix H offers more information on this subject.

Purchased commercial time on radio and television stations can be quite expensive, especially since repetition is desirable to increase the size of audience reached. Preparation time for commercials would be similar to that for PSAs. Payments to the broadcast stations could run into many thousands of dollars, depending

on the number of stations carrying your message. More information on purchasing commercial time is included in Appendix H.

NEWSPAPER ADVERTISING

If you want to be certain that your message is printed in newspapers in your State, you could consider buying advertisements. Alabama used this method to announce an underground injection program in the State.

If you decide to use newspaper advertising, staff time will be required to write the ads and send them to the selected newspapers in your State. Costs to place the ads will vary according to the size of the ads, how often they are run, and the number of newspapers carrying the ad.

OTHER COMMUNICATION METHODS

Various organizations in your State may help you "get the word out" on tank notification requirements. Trade associations are prominent among these, and their role in distribution of forms was discussed in Chapter 3. They can also help communicate with tank owners through meetings, journal articles, and newsletters.

ORGANIZATIONS CAN HELP GET THE WORD OUT

- Fire departments
 - Local governments
 - League of Women Voters
 - Environmental groups
 - Trade associations
 - Chambers of Commerce
 - Service clubs
 - Youth groups
-

Local fire departments represent another group having a vital interest in preventing leaks and spills. Rhode Island had a State-wide advisory committee that included the State Fire Marshal, trade associations, and other groups. Through the State Fire Marshal's office, fire chiefs' newsletters were used for communication and forms were distributed at the fire stations.

The National Fire Protection Association (NFPA) has been awarded a grant by EPA to provide information on the underground storage tank program to State and local fire department personnel. NFPA will be making nationwide telephone contact with State Fire Marshals, doing a mass mailing to the nation's fire departments, and preparing a video training program

for the fire departments. Your State Fire Marshal should be a good source of information regarding NFPA activities in your State.

California has stated that local governmental agencies were helpful in their notification effort, and emphasized the importance of keeping local governments updated. Suffolk County (Long Island), which recently implemented a tank notification program, also stressed the importance of local action. In addition to cities, towns, and counties, organizations such as Councils of Mayors and the League of Cities may help inform tank owners in your State. (It is worth noting that most local governments own underground storage tanks themselves.)

Other groups that could be helpful include Chambers of Commerce, the League of Women Voters, environmental groups, service clubs, and youth groups.

SUMMING UP

Based on the experience of other States, the most popular methods of communicating notification requirements are:

- Press releases
- Fact sheets, brochures, and journal articles
- Speeches
- Other organizations, especially trade associations, fire departments, and local government units.

These methods also have the advantage of being relatively low in cost, with the possible exception of printing large numbers of brochures.

Other methods that are relatively untested for this type of program, but still merit your consideration, include:

- Public service announcements on radio and TV
- Paid advertising
- Videotapes.

Public service announcements are not very costly, but the other methods listed can cost thousands of dollars. The table on page 32 summarizes communications costs developed in Appendix F for three different-sized States.

Your choice of publicity media will depend on the types of form distribution and collection you have selected and your total budget. Based on others' experiences, you will have the most success if you try to use a variety of communication methods to reach the diverse audience of underground tank owners.

DEPARTMENT OF NATURAL RESOURCES
400 Main Street
Capitol City, Anystate 12345

RADIO
PUBLIC SERVICE ANNOUNCEMENT

CONTACT: John Smith
1-800-UST-INFO

FOR RELEASE: December 2, 1985

UNDERGROUND STORAGE TANK NOTIFICATION

Reading time: 20 seconds

Do you own an underground storage tank containing gasoline or other hazardous substance? If so, you must notify the Anystate Department of Natural Resources before May 8, 1986. Call 1-800-UST-INFO to order notification forms or ask for more information.

#

Reading time: 30 seconds

To help protect our drinking water and environment from leaks of hazardous substances, Anystate is making an inventory of underground storage tanks. Owners of underground tanks containing petroleum products such as gasoline or other hazardous substances must notify the Anystate Department of Natural Resources before May 8, 1986. Call 1-800-UST-INFO to order notification forms or to ask for more information.

#

Example 20- and 30-second radio public service announcements.

DEPARTMENT OF NATURAL RESOURCES
400 Main Street
Capitol City, Anystate 12345

RADIO
PUBLIC SERVICE ANNOUNCEMENT

CONTACT: John Smith
1-800-UST-INFO

FOR RELEASE: IMMEDIATE

UNDERGROUND STORAGE TANK NOTIFICATION

Reading time: 60 seconds

Leaks of gasoline or hazardous chemicals can contaminate our drinking water, cause explosions, or otherwise damage our environment. Anystate is making an inventory of underground storage tanks containing gasoline, diesel fuel, chemicals such as industrial solvents, and other regulated substances. If you own such a tank, you must notify the Anystate Department of Natural Resources before May 8, 1986. Anyone who knows of an abandoned underground storage tank should also notify the DNR. Abandoned tanks may still hold dangerous chemicals that could harm our health and environment. Tank owners or interested citizens can call 1-800-UST-INFO to obtain notification forms or to ask for more information. If we all work together we can keep our water clean now and in the future.

end

Example 60-second radio public service announcement.

DEPARTMENT OF NATURAL RESOURCES
400 Main Street
Capitol City, Anystate 12345

TELEVISION
PUBLIC SERVICE ANNOUNCEMENT

CONTACT: John Smith
1-800-UST-INFO

FOR RELEASE: IMMEDIATE

UNDERGROUND STORAGE TANK NOTIFICATION

Reading time: 20 seconds

Slides

Filling station

Do you own an underground storage tank containing gasoline or other hazardous substance? If so, you must notify the Anystate Department of Natural Resources before May 8, 1986. Call 1-800-UST-INFO to order notification forms or ask for more information.

#

Reading time: 30 seconds

Child drinking water

Filling station

Name of Agency
& phone number

To help protect our drinking water and environment from leaks of hazardous substances, Anystate is making an inventory of underground storage tanks. Owners of underground tanks containing petroleum products such as gasoline or other hazardous substances must notify the Anystate Department of Natural Resources before May 8, 1986. Call 1-800-UST-INFO to order notification forms or to ask for more information.

#

Example 20- and 30-second television public service announcements.

DEPARTMENT OF NATURAL RESOURCES
400 Main Street
Capitol City, Anystate 12345

TELEVISION
PUBLIC SERVICE ANNOUNCEMENT

CONTACT: John Smith
1-800-UST-INFO

FOR RELEASE: IMMEDIATE

UNDERGROUND STORAGE TANK NOTIFICATION

Reading time: 60 seconds

Slides

	Leaks of gasoline or hazardous chemicals can
Child drinking water	contaminate our drinking water, cause explosions,
	or otherwise damage our environment. Anystate
Filling station	is making an inventory of underground storage tanks
	containing gasoline, diesel fuel, chemicals such as
Dry cleaners	industrial solvents, and other regulated substances.
	If you own such a tank, you must notify the Anystate
	Department of Natural Resources before May 8, 1986.
Abandoned filling station	Anyone who knows of an abandoned underground storage
	tank should also notify the DNR. Abandoned tanks
	may still hold dangerous chemicals that could harm
Name of Agency & phone number	our health and environment. Tank owners or
	interested citizens can call 1-800-UST-INFO to
	obtain information forms or to ask for more
Stream of flowing water: Agency & phone number superimposed	information. If we all work together we can keep
	our water clean now and in the future.

end

Example 60-second television public service announcement.

ESTIMATED COSTS FOR VARIOUS COMMUNICATION METHODS

Method/Assumptions	Staff Time (Hours)			Direct Costs (\$)		
	Low	Medium	High	Low	Medium	High
Press Releases (5 one-page press releases to all newspapers, radio, and TV stations in State.)	64	80	130	300	1,240	2,260
Fact Sheets (A two-page fact sheet equal to number of UST owners in State.)	16	16	24	400	2,000	4,000
Brochures (9 x 16-inch printed, folded brochures equal to number of UST owners in State.)	32	32	48	1,000	5,000	10,000
Journal Articles (2 10-page articles to selected journals.)	40	60	80	150	260	350
Speeches (2 speeches in 5 to 7 regions of State.)	96	96	128	200	200	300
Videotape					7,000 extra	
Slides					150 extra	
Public Service Announcements						
Radio (2 PSAs each station.)	20	20	30	100	330	500
TV (2 PSAs each station.)	25	25	35	100	280	400
Paid Advertising						
Newspapers (2 ads in selected papers.)	16	16	24	2,000	15,000	20,000
Radio (2 one-minute ads 5 times on selected stations.)	16	16	24	10,000	20,000	30,000
Television (2 ads 5 times on selected stations.)	16	16	24	30,000	50,000	70,000

The low range represents a State with a population of 800,000, 16 counties, and 5,000 USTs; the medium range, a State with a population of 5,500,000, 92 counties, and 35,000 USTs; and the high range, a State with a population of 10,800,000, 88 counties, and 70,000 USTs. See Appendix F for details.

APPENDIX A

SUBTITLE I OF THE RESOURCE CONSERVATION AND RECOVERY ACT

"Subtitle I—Regulation of Underground Storage Tanks

"DEFINITIONS AND EXEMPTIONS

"Sec. 9001. For the purposes of this subtitle—

"(1) The term 'underground storage tank' means any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is 10 per centum or more beneath the surface of the ground. Such term does not include any—

"(A) farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.

"(B) tank used for storing heating oil for consumptive use on the premises where stored.

"(C) septic tank.

"(D) pipeline facility (including gathering lines) regulated under—

"(i) the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.),

"(ii) the Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.), or

"(iii) which is an intrastate pipeline facility regulated under State laws comparable to the provisions of law referred to in clause (i) or (ii) of this subparagraph.

"(E) surface impoundment, pit, pond, or lagoon.

"(F) storm water or waste water collection system.

"(G) flow-through process tank.

"(H) liquid trap or associated gathering lines directly related to oil or gas production and gathering operations, or

"(I) storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

The term 'underground storage tank' shall not include any pipes connected to any tank which is described in subparagraphs (A) through (I).

"(2) The term 'regulated substance' means—

"(A) any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under subtitle C), and

"(B) petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

"(3) The term 'owner' means—

"(A) in the case of an underground storage tank in use on the date of enactment of the Hazardous and Solid Waste Amendments of 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

"(B) in the case of any underground storage tank in use before the date of enactment of the Hazardous and Solid Waste Amendments of 1984, but no longer in use on the date of enactment of such Amendments, any person who owned such tank immediately before the discontinuation of its use.

"(4) The term 'operator' means any person in control of, or having responsibility for, the daily operation of the underground storage tank.

"(5) The term 'release' means any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from an underground storage tank into ground water, surface water or subsurface soils.

"(6) The term 'person' has the same meaning as provided in section 1004(15), except that such term includes a consortium, a joint venture, and a commercial entity, and the United States Government.

"(7) The term 'nonoperational storage tank' means any underground storage tank in which regulated substances will not be deposited or from which regulated substances will not be dispensed after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984.

"NOTIFICATION

"Sec. 9002. (a) UNDERGROUND STORAGE TANKS.—(1) Within 18 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, each owner of an underground storage tank shall notify the State or local agency or department designated pursuant to subsection (b)(1) of the existence of such tank, specifying the age, size, type, location, and uses of such tank.

"(2)(A) For each underground storage tank taken out of operation after January 1, 1974, the owner of such tank shall, within eighteen months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, notify the State or local agency, or department designated pursuant to subsection (b)(1) of the existence of such tanks (unless the owner knows the tank subsequently was removed from the ground). The owner of a tank taken out of operation on or before January 1, 1974, shall not be required to notify the State or local agency under this subsection.

"(B) Notice under subparagraph (A) shall specify, to the extent known to the owner—

"(i) the date the tank was taken out of operation.

"(ii) the age of the tank on the date taken out of operation.

"(iii) the size, type and location of the tank, and

"(iv) the type and quantity of substances left stored in such tank on the date taken out of operation.

"(3) Any owner which brings into use an underground storage tank after the initial notification period specified under paragraph (1), shall notify the designated State or local agency or department within thirty days of the existence of such tank, specifying the age, size, type, location and uses of such tank.

"(4) Paragraphs (1) through (3) of this subsection shall not apply to tanks for which notice was given pursuant to section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

"(5) Beginning thirty days after the Administrator prescribes the form of notice pursuant to subsection (b)(2) and for eighteen months thereafter, any person who deposits regulated substances in an underground storage tank shall reasonably notify the owner or operator of such tank of the owner's notification requirements pursuant to this subsection.

"(6) Beginning thirty days after the Administrator issues new tank performance standards pursuant to section 9003(e) of this subtitle, any person who sells a tank intended to be used as an underground storage tank shall notify the purchaser of such tank of the owner's notification requirements pursuant to this subsection.

"(b) AGENCY DESIGNATION.—(1) Within one hundred and eighty days after the enactment of the Hazardous and Solid Waste Amendments of 1984, the Governors of each State shall designate the appropriate State agency or department or local agencies or departments to receive the notifications under subsection (a) (1), (2), or (3).

"(2) Within twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator, in consultation with State and local officials designated pursuant to subsection (b)(1), and after notice and opportunity for public comment, shall prescribe the form of the notice and the information to be included in the notifications under subsection (a) (1), (2), or (3). In prescribing the form of such notice, the Administrator shall take into account the effect on small businesses and other owners and operators.

"RELEASE DETECTION, PREVENTION, AND CORRECTION REGULATIONS

"Sec. 9003. (a) REGULATIONS.—The Administrator, after notice and opportunity for public comment, and at least three months before

the effective dates specified in subsection (f), shall promulgate release detection, prevention, and correction regulations applicable to all owners and operators of underground storage tanks, as may be necessary to protect human health and the environment.

"(b) **DISTINCTIONS IN REGULATIONS.**—In promulgating regulations under this section, the Administrator may distinguish between types, classes, and ages of underground storage tanks. In making such distinctions, the Administrator may take into consideration factors, including, but not limited to: location of the tanks, soil and climate conditions, uses of the tanks, history of maintenance, age of the tanks, current industry recommended practices, national consensus codes, hydrogeology, water table, size of the tanks, quantity of regulated substances periodically deposited in or dispensed from the tank, the technical capability of the owners and operators, and the compatibility of the regulated substance and the materials of which the tank is fabricated.

"(c) **REQUIREMENTS.**—The regulations promulgated pursuant to this section shall include, but need not be limited to, the following requirements respecting all underground storage tanks—

"(1) requirements for maintaining a leak detection system, an inventory control system together with tank testing, or a comparable system or method designed to identify releases in a manner consistent with the protection of human health and the environment;

"(2) requirements for maintaining records of any monitoring or leak detection system or inventory control system or tank testing or comparable system;

"(3) requirements for reporting of releases and corrective action taken in response to a release from an underground storage tank;

"(4) requirements for taking corrective action in response to a release from an underground storage tank; and

"(5) requirements for the closure of tanks to prevent future releases of regulated substances into the environment.

"(d) **FINANCIAL RESPONSIBILITY.**—(1) As he deems necessary or desirable, the Administrator shall promulgate regulations containing requirements for maintaining evidence of financial responsibility as he deems necessary and desirable for taking corrective action and compensating third parties for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from operating an underground storage tank.

"(2) Financial responsibility required by this subsection may be established in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, surety bond, letter of credit, or qualification as a self-insurer. In promulgating requirements under this subsection, the Administrator is authorized to specify policy or other contractual terms, conditions, or defenses which are necessary or are unacceptable in establishing such evidence of financial responsibility in order to effectuate the purposes of this subtitle.

"(3) In any case where the owner or operator is in bankruptcy, reorganization, or arrangement pursuant to the Federal Bankruptcy Code or where with reasonable diligence jurisdiction in any State court of the Federal Courts cannot be obtained over an owner or operator likely to be solvent at the time of judgment, any claim arising from conduct for which evidence of financial responsibility must be provided under this subsection may be asserted directly against the guarantor providing such evidence of financial responsibility. In the case of any action pursuant to this paragraph such guarantor shall be entitled to invoke all rights and defenses which would have been available to the owner or operator if any action had been brought against the owner or operator by the claimant and which would have been available to the guarantor if an action had been brought against the guarantor by the owner or operator.

"(4) The total liability of any guarantor shall be limited to the aggregate amount which the guarantor has provided as evidence of financial responsibility to the owner or operator under this section. Nothing in this subsection shall be construed to limit any other State or Federal statutory, contractual or common law liability of a guarantor to its owner or operator including, but not limited to, the

liability of such guarantor for bad faith either in negotiating or in failing to negotiate the settlement of any claim. Nothing in this subsection shall be construed to diminish the liability of any person under section 107 or 111 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or other applicable law.

"(5) For the purpose of this subsection, the term 'guarantor' means any person, other than the owner or operator, who provides evidence of financial responsibility for an owner or operator under this subsection.

"(e) **NEW TANK PERFORMANCE STANDARDS.**—The Administrator shall, not later than three months prior to the effective date specified in subsection (f), issue performance standards for underground storage tanks brought into use on or after the effective date of such standards. The performance standards for new underground storage tanks shall include, but need not be limited to, design, construction, installation, release detection, and compatibility standards.

"(f) **EFFECTIVE DATES.**—(1) Regulations issued pursuant to subsection (c) and (d) of this section, and standards issued pursuant to subsection (e) of this section, for underground storage tanks containing regulated substances defined in section 9001(2)(B) (petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure) shall be effective not later than thirty months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

"(2) Standards issued pursuant to subsection (e) of this section (entitled 'New Tank Performance Standards') for underground storage tanks containing regulated substances defined in section 9001(2)(A) shall be effective not later than thirty-six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

"(3) Regulations issued pursuant to subsection (c) of this section (entitled 'Requirements') and standards issued pursuant to subsection (d) of this section (entitled 'Financial Responsibility') for underground storage tanks containing regulated substances defined in section 9001(2)(A) shall be effective not later than forty-eight months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984.

"(g) **INTERIM PROHIBITION.**—(1) Until the effective date of the standards promulgated by the Administrator under subsection (e) and after one hundred and eighty days after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, no person may install an underground storage tank for the purpose of storing regulated substances unless such tank: whether of single or double wall construction—

"(A) will prevent releases due to corrosion or structural failure for the operational life of the tank;

"(B) is cathodically protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed in a manner to prevent the release or threatened release of any stored substance; and

"(C) the material used in the construction or lining of the tank is compatible with the substance to be stored.

"(2) Notwithstanding paragraph (1), if soil tests conducted in accordance with ASTM Standard G57-78, or another standard approved by the Administrator, show that soil resistivity in an installation location is 12,000 ohm/cm or more (unless a more stringent standard is prescribed by the Administrator by rule), a storage tank without corrosion protection may be installed in that location during the period referred to in paragraph (1).

"APPROVAL OF STATE PROGRAMS

"Sec. 9004. (a) **ELEMENTS OF STATE PROGRAM.**—Beginning 30 months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, any State may, submit an underground storage tank release detection, prevention, and correction program for review and approval by the Administrator. The program may cover tanks used to store regulated substances referred to in 9001(2) (A) or (B) or both. A State program may be approved by the

Administrator under this section only if the State demonstrates that the State program includes the following requirements and standards and provides for adequate enforcement of compliance with such requirements and standards—

"(1) requirements for maintaining a leak detection system, an inventory control system together with tank testing, or a comparable system or method designed to identify releases in a manner consistent with the protection of human health and the environment;

"(2) requirements for maintaining records of any monitoring or leak detection system or inventory control system or tank testing system;

"(3) requirements for reporting of any releases and corrective action taken in response to a release from an underground storage tank;

"(4) requirements for taking corrective action in response to a release from an underground storage tank;

"(5) requirements for the closure of tanks to prevent future releases of regulated substances into the environment;

"(6) requirements for maintaining evidence of financial responsibility for taking corrective action and compensating third parties for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from operating an underground storage tank;

"(7) standards of performance for new underground storage tanks; and

"(8) requirements—

"(A) for notifying the appropriate State agency or department (or local agency or department) designated according to section 9002(b)(1) of the existence of any operational or non-operational underground storage tank; and

"(B) for providing the information required on the form issued pursuant to section 9002(b)(2).

"(b) **FEDERAL STANDARDS.**—(1) A State program submitted under this section may be approved only if the requirements under paragraphs (1) through (7) of subsection (a) are no less stringent than the corresponding requirements standards promulgated by the Administrator pursuant to section 9003(a).

"(2)(A) A State program may be approved without regard to whether or not the requirements referred to in paragraphs (1), (2), (3), and (5) of subsection (a) are less stringent than the corresponding standards under section 9003(a) during the one-year period commencing on the date of promulgation of regulations under section 9003(a) if State regulatory action but no State legislative action is required in order to adopt a State program.

"(B) If such State legislative action is required, the State program may be approved without regard to whether or not the requirements referred to in paragraphs (1), (2), (3), and (5) of subsection (a) are less stringent than the corresponding standards under section 9003(a) during the two-year period commencing on the date of promulgation of regulations under section 9003(a) (and during an additional one-year period after such legislative action if regulations are required to be promulgated by the State pursuant to such legislative action).

"(c) **FINANCIAL RESPONSIBILITY.**—(1) Corrective action and compensation programs financed by fees on tank owners and operators and administered by State or local agencies or departments may be submitted for approval under subsection (a)(6) as evidence of financial responsibility.

"(2) Financial responsibility required by this subsection may be established in accordance with regulations promulgated by the Administrator by any one, or any combination, of the following: insurance, guarantee, surety bond, letter of credit, or qualification as a self-insurer. In promulgating requirements under this subsection, the Administrator is authorized to specify policy or other contractual terms, conditions, or defenses which are necessary or are unacceptable in establishing such evidence of financial responsibility in order to effectuate the purposes of this subtitle.

"(3) In any case where the owner or operator is in bankruptcy, reorganization, or arrangement pursuant to the Federal Bankruptcy Code or where with reasonable diligence jurisdiction in any State court of the Federal courts cannot be obtained over an owner or operator likely to be solvent at the time of judgment, any claim arising from conduct for which evidence of financial responsibility

must be provided under this subsection may be asserted directly against the guarantor providing such evidence of financial responsibility. In the case of any action pursuant to this paragraph such guarantor shall be entitled to invoke all rights and defenses which would have been available to the owner or operator if any action had been brought against the owner or operator by the claimant and which would have been available to the guarantor if an action had been brought against the guarantor by the owner or operator.

"(4) The total liability of any guarantor shall be limited to the aggregate amount which the guarantor has provided as evidence of financial responsibility to the owner or operator under this section. Nothing in this subsection shall be construed to limit any other State or Federal statutory, contractual or common law liability of a guarantor to its owner or operator including, but not limited to, the liability of such guarantor for bad faith either in negotiating or in failing to negotiate the settlement of any claim. Nothing in this subsection shall be construed to diminish the liability of any person under section 107 or 111 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or other applicable law.

"(5) For the purpose of this subsection, the term 'guarantor' means any person, other than the owner or operator, who provides evidence of financial responsibility for an owner or operator under this subsection.

"(d) **EPA DETERMINATION.**—(1) Within one hundred and eighty days of the date of receipt of a proposed State program, the Administrator shall, after notice and opportunity for public comment, make a determination whether the State's program complies with the provisions of this section and provides for adequate enforcement of compliance with the requirements and standards adopted pursuant to this section.

"(2) If the Administrator determines that a State program complies with the provisions of this section and provides for adequate enforcement of compliance with the requirements and standards adopted pursuant to this section, he shall approve the State program in lieu of the Federal program and the State shall have primary enforcement responsibility with respect to requirements of its program.

"(e) **WITHDRAWAL OF AUTHORIZATION.**—Whenever the Administrator determines after public hearing that a State is not administering and enforcing a program authorized under this subtitle in accordance with the provisions of this section, he shall so notify the State. If appropriate action is not taken within a reasonable time, not to exceed one hundred and twenty days after such notification, the Administrator shall withdraw approval of such program and reestablish the Federal program pursuant to this subtitle.

"INSPECTIONS, MONITORING, AND TESTING

"Sec. 9005. (a) **FURNISHING INFORMATION.**—For the purposes of developing or assisting in the development of any regulation, conducting any study, or enforcing the provisions of this subtitle, any owner or operator of an underground storage tank (or any tank subject to study under section 9009 that is used for storing regulated substances) shall, upon request of any officer, employee or representative of the Environmental Protection Agency, duly designated by the Administrator, or upon request of any duly designated officer, employee, or representative of a State with an approved program, furnish information relating to such tanks, their associated equipment, their contents, conduct monitoring or testing, and permit such officer at all reasonable times to have access to, and to copy all records relating to such tanks. For the purposes of developing or assisting in the development of any regulation, conducting any study, or enforcing the provisions of this subtitle, such officers, employees, or representatives are authorized—

"(1) to enter at reasonable times any establishment or other place where an underground storage tank is located;

"(2) to inspect and obtain samples from any person of any regulated substances contained in such tank; and

"(3) to conduct monitoring or testing of the tanks, associated equipment, contents, or surrounding soils, air, surface water or ground water.

Each such inspection shall be commenced and completed with reasonable promptness.

"(b) **CONFIDENTIALITY.**—(1) Any records, reports, or information obtained from any persons under this section shall be available to the public, except that upon a showing satisfactory to the Administrator (or the State, as the case may be) by any person that records, reports, or information, or a particular part thereof, to which the Administrator (or the State, as the case may be) or any officer, employee, or representative thereof has access under this section if made public, would divulge information entitled to protection under section 1905 of title 18 of the United States Code, such information or particular portion thereof shall be considered confidential in accordance with the purposes of that section, except that such record, report, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, or when relevant in any proceeding under this Act.

"(2) Any person not subject to the provisions of section 1905 of title 18 of the United States Code who knowingly and willfully divulges or discloses any information entitled to protection under this subsection shall, upon conviction, be subject to a fine of not more than \$5,000 or to imprisonment not to exceed one year, or both.

"(3) In submitting data under this subtitle, a person required to provide such data may—

"(A) designate the data which such person believes is entitled to protection under this subsection, and

"(B) submit such designated data separately from other data submitted under this subtitle.

A designation under this paragraph shall be made in writing and in such manner as the Administrator may prescribe.

"(4) Notwithstanding any limitation contained in this section or any other provision of law, all information reported to, or otherwise obtained, by the Administrator (or any representative of the Administrator) under this Act shall be made available, upon written request of any duly authorized committee of the Congress, to such committee (including records, reports, or information obtained by representatives of the Environmental Protection Agency).

"FEDERAL ENFORCEMENT

"Sec. 9006. (a) **COMPLIANCE ORDERS.**—(1) Except as provided in paragraph (2), whenever on the basis of any information, the Administrator determines that any person is in violation of any requirement of this subtitle, the Administrator may issue an order requiring compliance within a reasonable specified time period or the Administrator may commence a civil action in the United States district court in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

"(2) In the case of a violation of any requirement of this subtitle where such violation occurs in a State with a program approved under section 9004, the Administrator shall give notice to the State in which such violation has occurred prior to issuing an order or commencing a civil action under this section.

"(3) If a violator fails to comply with an order under this subsection within the time specified in the order, he shall be liable for a civil penalty of not more than \$25,000 for each day of continued noncompliance.

"(b) **PROCEDURE.**—Any order issued under this section shall become final unless, no later than thirty days after the order is served, the person or persons named therein request a public hearing. Upon such request the Administrator shall promptly conduct a public hearing. In connection with any proceeding under this section the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

"(c) **CONTENTS OF ORDER.**—Any order issued under this section shall state with reasonable specificity the nature of the violation, specify a reasonable time for compliance, and assess a penalty, if any, which the Administrator determines is reasonable taking into account the seriousness of the violation and any good faith efforts to comply with the applicable requirements.

"(d) **CIVIL PENALTIES.**—(1) Any owner who knowingly fails to notify or submits false information pursuant to section 9002(a) shall be subject to a civil penalty not to exceed \$10,000 for each tank for

which notification is not given or false information is submitted.

"(2) Any owner or operator of an underground storage tank who fails to comply with—

"(A) any requirement or standard promulgated by the Administrator under section 9003;

"(B) any requirement or standard of a State program approved pursuant to section 9004; or

"(C) the provisions of section 9003(g) (entitled 'Interim Prohibition')

shall be subject to a civil penalty not to exceed \$10,000 for each tank for each day of violation.

"FEDERAL FACILITIES

"Sec. 9007. (a) **APPLICATION OF SUBTITLE.**—Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government having jurisdiction over any underground storage tank shall be subject to and comply with all Federal, State, interstate, and local requirements, applicable to such tank, both substantive and procedural, in the same manner, and to the same extent, as any other person is subject to such requirements, including payment of reasonable service charges. Neither the United States, nor any agent, employee, or officer thereof, shall be immune or exempt from any process or sanction of any State or Federal court with respect to the enforcement of any such injunctive relief.

"(b) **PRESIDENTIAL EXEMPTION.**—The President may exempt any underground storage tanks of any department, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriations. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

"STATE AUTHORITY

"Sec. 9008. Nothing in this subtitle shall preclude or deny any right of any State or political subdivision thereof to adopt or enforce any regulation, requirement or standard of performance respecting underground storage tanks that is more stringent than a regulation, requirement, or standard of performance in effect under this subtitle.

"STUDY OF UNDERGROUND STORAGE TANKS

"Sec. 9009. (a) **PETROLEUM TANK.**—Not later than twelve months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall complete a study of underground storage tanks used for the storage of regulated substances defined in section 9001(2)(B).

"(b) **OTHER TANK.**—Not later than thirty-six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall complete a study of all other underground storage tanks.

"(c) **ELEMENTS OF STUDIES.**—The studies under subsections (a) and (b) shall include an assessment of the ages, types (including methods of manufacture, coatings, protection systems, the comparability of the construction materials and the installation methods) and locations (including the climate of the locations) of such tanks; soil conditions, water tables, and the hydrogeology of tank locations; the relationship between the foregoing factors and the likelihood of releases from underground storage tanks; the effectiveness and costs of inventory systems, tank testing, and leak detection systems; and such other factors as the Administrator deems appropriate.

APPENDIX B

HAZARDOUS SUBSTANCE LIST

For Regulation of Underground Storage Tanks Under Resource Conservation and Recovery Act, Subtitle I

Hazardous Substance	CASRN*	Hazardous Substance	CASRN	Hazardous Substance	CASRN
Acenaphthene	63329	Ammonium fluoroborate	13826830	Barium cyanide	54262*
Acenaphthylene	208968	Ammonium fluocide	12125018	Benzilaceanthrylene 1,2-dihydro-3-methyl-	56495
Acetaldehyde	75070	Ammonium hydroxide	1336216	Benzicacine	225514
Acetaldehyde, chloro-	107200	Ammonium oxalate	6009707	3,4-Benzacine	225314
Acetaldehyde, trichloro-	75876		5972736	Benzal chloride	96577
Acetamide, N-(4-ethoxymethyl)-	591082		14258492	Benzalanthracene	56553
Acetamide, N-(4-ethoxyphenyl)-	62442	Ammonium picrate	131748	1,2-Benzanthracene	56503
Acetamide, N-9H-fluoren-2-yl-	53963	Ammonium silicofluoride	16919190	1,2-Benzanthracene 7,12-dimethyl-	57976
Acetamide, 2-fluoro-	640197	Ammonium sulfate	7773060	Benzenamine	62133
Acetic acid	64197	Ammonium sulfide	12135781	Benzenamine, 4,4'-carbonyldi(bis(2-N,N-dimethyl-)	492808
Acetic acid, ethyl ester	141786	Ammonium sulfite	10196040	Benzenamine, 4-chloro-	106478
Acetic acid, fluoro-, sodium salt	62748	Ammonium tartrate	14307438	Benzenamine, 4-chloro-2-methyl-, hydrochloride	3155333
Acetic acid, lead salt	301042		3164292	Benzenamine, N,N-dimethyl-4-phenylazo-	60117
Acetic acid, thalium(I) salt	563688	Ammonium thiocyanate	1762954	Benzenamine, 4,4'-methylenebis(2-chloro-	101144
Acetic anhydride	108247	Ammonium thiosulfate	7783188	Benzenamine, 2-methyl-, hydrochloride	636215
Aceticimic acid, N-[(methylcarbamoyl)oxy] thio methyl ester	16752775	Ammonium vanadate	7803556	Benzenamine, 2-methyl-5-nitro-	99558
Acetone	67841	Amyl acetate	628637	Benzenamine, 4-nitro-	100016
Acetone cyanohydrin	75865	iso-	123922	Benzene	71432
Acetonitrile	75058	sec-	626380	Benzene, 1-bromo-4-phenoxy-	101553
3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts	81612	tert-	625161	Benzene chloro-	108907
Acetophenone	98862	Aniline	62533	Benzene, chloromethyl-	100447
2-Acetylaminofluorene	53963	Anthracene	120127	Benzene, 1,2-dichloro-	95501
Acetyl bromide	508967	Antimony III	7440360	Benzene, 1,3-dichloro-	541731
Acetyl chloride	75365	ANTIMONY AND COMPOUNDS		Benzene, 1,4-dichloro-	106467
1-Acetyl-2-thiourea	591082	Antimony pentachloride	7647189	Benzene, dichloromethyl-	98873
Acrolein	107028	Antimony potassium tartrate	28300745	Benzene, 2,4-dicyanatomethyl	584849
Acrylamide	79061	Antimony tribromide	7789619		91087
Acrylic acid	79107	Antimony trichloride	10025919	Benzene, 2,4-dicyanatomethyl	26471625
Acrylonitrile	107131	Antimony triiodide	7783564	Benzene, dimethyl	1330207
Adipic acid	124049	Antimony trioxide	1309644	m-	108383
Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L-	148823	Aroclor 1018	12674112	o-	95476
Aldicarb	118063	Aroclor 1221	11104282	p-	106423
Aldrin	308002	Aroclor 1232	11141185	Benzene, hexachloro-	118741
Allyl alcohol	107186	Aroclor 1242	53489219	Benzene, hexahydro-	110827
Allyl chloride	107061	Aroclor 1248	12672296	Benzene, hydroxy-	108952
Aluminum phosphide	20659736	Aroclor 1254	11087891	Benzene, methyl-	108863
Aluminum sulfate	10043013	Aroclor 1280	11096825	Benzene, 1-methyl-2,4-dinitro-	121142
5-(Aminomethyl)-3-isoxazoli	2763864	Arsenic III	7440382	Benzene, 1-methyl-2,6-dinitro-	606202
4-Aminopyridine	504245	Arsenic acid	1327522	Benzene, 1,2-methylenedioxy-4-allyl-	94597
Amibole	81825	ARSENIC AND COMPOUNDS	7778394	Benzene, 1,2-methylenedioxy-4-propenyl-	120581
Ammonia	766417	Arsenic disulfide	1303328	Benzene, 1,2-methylenedioxy-4-propyl-	94586
Ammonium acetate	631618	Arsenic (III) oxide	1327533	Benzene, 1-methylethyl-	98828
Ammonium benzoate	1863634	Arsenic(V) oxide	1303262	Benzene, nitro-	98933
Ammonium bicarbonate	1066337	Arsenic pentoxide	1303282	Benzene, pentachloro-	608935
Ammonium bichromate	7789095	Arsenic trichloride	7784341	Benzene, pentachloronitro-	62688
Ammonium bifluoride	1341497	Arsenic trioxide	1327533	Benzene, 1,2,4,5-tetrachloro-	95843
Ammonium bisulfite	10192300	Arsenic trisulfide	1303339	Benzene, trichloromethyl-	98077
Ammonium carbonate	1111780	Arsine, diethyl-	692422	Benzene, 1,3,5-trinitro-	99354
Ammonium carbonate	506876	Asbestos III	1332214	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510156
Ammonium chloride	12125029	Auramine	462808	1,2-Benzenedicarboxylic acid anhydride	95449
Ammonium chromate	7789968	Azaserine	115026	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester	1176617
Ammonium citrate, dibasic	3012655	Azidine	161564	1,2-Benzenedicarboxylic acid, dibutyl ester	84742
		Azino(2,3':3,4')pyrrolo(1,2-a)indole-4,7-dione, 5-amino-8-[(aminocarbonyl)oxy]methyl-, 1,1a,2,2a,8a,8b-hexahydro-8a-methoxy-5-methyl-	50077	1,2-Benzenedicarboxylic acid, diethyl ester	84662

*Chemical Abstracts Service Registry Number

"(d) FARM AND HEATING OIL TANKS.—Not later than thirty-six months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the Administrator shall conduct a study regarding the tanks referred to in section 9001(1) (A) and (B). Such study shall include estimates of the number and location of such tanks and an analysis of the extent to which there may be releases or threatened releases from such tanks into the environment.

"(e) REPORTS.—Upon completion of the studies authorized by this section, the Administrator shall submit reports to the President and to the Congress containing the results of the studies and recommendations respecting whether or not such tanks should be subject to the preceding provisions of this subtitle.

"(f) REIMBURSEMENT.—(1) If any owner or operator (excepting an agency, department, or instrumentality of the United States Government, a State or a political subdivision thereof) shall incur costs, including the loss of business opportunity, due to the closure or interruption of operation of an underground storage tank solely for the purpose of conducting studies authorized by this section, the Administrator shall provide such person fair and equitable reimbursement for such costs.

"(2) All claims for reimbursement shall be filed with the Administrator not later than ninety days after the closure or interruption which gives rise to the claim.

"(3) Reimbursements made under this section shall be from funds appropriated by the Congress pursuant to the authorization contained in section 2007(g).

"(4) For purposes of judicial review, a determination by the Administrator under this subsection shall be considered final agency action.

"AUTHORIZATION OF APPROPRIATIONS

"Sec. 9010. For authorization of appropriations to carry out this subtitle, see section 2007(g).

Hazardous Substance	CASRN	Hazardous Substance	CASRN	Hazardous Substance	CASRN
1,2-Benzenedicarboxylic acid, dimethyl ester	131113	2-Butanone	78933	Chlordane, technical	57749
1,2-Benzenedicarboxylic acid, di-n-octyl ester	117840	2-Butanone peroxide	1338234	CHLORINATED BENZENES	
1,3-Benzenediol	108463	2-Butenal	123739 4170303	CHLORINATED ETHANES	
1,2-Benzenediol 4-[1-hydroxy-2-(methylamino)ethyl]	51434	2-Butene, 1,4-dichloro-	784410	CHLORINATED NAPHTHALENE	
Benzenesulfonic acid chloride	98099	Butyl acetate	123864	CHLORINATED PHENOLS	
Benzenesulfonyl chloride	98099	iso-	110190	Chlorine	7782505
Benzenethiol	108985	sec-	105484	Chlorine cyanide	506774
Benzidine	92875	tert-	540885	Chloromaphazine	484031
1,2-Benzisothiazolin-3-one,1,1-dioxide, and salts	81072	n-Butyl alcohol	71383	Chloroacetaldehyde	107200
Benz(a)anthracene	56553	Butylamine	109739	CHLOROALKYL ETHERS	
Benz(b)fluoranthene	205992	iso-	78819	p-Chloroaniline	108478
Benz(k)fluoranthene	207089	sec-	513496	Chlorobenzene	108907
Benz(j,k) fluorene	206440	sec-	13652846	4-Chloro-m-cresol	50507
Benzoic acid	65850	tert-	75849	p-Chloro-m-cresol	59507
Benzonitrile	100470	Butyl benzyl phthalate	85887	Chlorodibromomethane	124481
Benzo(g,h,i)perylene	191242	n-Butyl phthalate	84742	1-Chloro-2,3-epoxypropene	106898
Benzo(a)pyrene	50328	Butyric acid	107926	Chloroethane	75003
3,4-Benzopyrene	50328	iso-	79312	2-Chloroethyl vinyl ether	110758
p-Benzoquinone	106514	Caproic acid	75605	Chloroform	67663
Benzotrichloride	98077	Cadmium tt	7440439	Chloromethyl methyl ether	107302
Benzoyl chloride	98884	Cadmium acetate	543908	beta-Chloronaphthalene	91587
1,2-Benzophenanthrene	218019	CADMIUM AND COMPOUNDS		2-Chloronaphthalene	91587
Benzyl chloride	100447	Cadmium bromide	7789426	2-Chlorophenol	96578
Beryllium tt	7440417	Cadmium chloride	10108642	o-Chlorophenol	96578
BERYLLIUM AND COMPOUNDS		Calcium arsenate	7778441	4-Chlorophenyl phenyl ether	70057232
Beryllium chloride	7787475	Calcium arsenite	52740166	1-(o-Chlorophenyl)thiourea	5348821
Beryllium dust	7440417	Calcium carbide	75207	3-Chloropropionitrile	542787
Beryllium fluoride	7787497	Calcium chromate	13785190	Chlorosulfonic acid	7790945
Beryllium nitrate	13597994 7787555	Calcium cyanide	592018	4-Chloro-o-toluidine, hydrochloride	3165933
alpha - BHC	319846	Calcium dodecylbenzene sulfonate	28264062	Chlorpyrifos	2921682
beta - BHC	319857	Calcium hypochlorite	7778543	Chromic acetate	1086304
gamma - BHC	58999	Camphene, octachloro-	8001352	Chromic acid	11115745 7738945
delta - BHC	319868	Captan	133062	Chromic acid, calcium salt	13785190
2,2'-Bioxane	1464535	Carbamic acid, ethyl ester	51796	Chromic sulfate	10101538
(1,1'-Biphenyl)-4,4' diamine	92875	Carbamic acid, methylnitroso-,ethyl ester	815532	Chromium tt	7440473
(1,1'-Biphenyl)-4,4' diamine,3,3' dichloro-	81941	Carbamide, N-ethyl-N-nitroso-	799739	CHROMIUM AND COMPOUNDS	
(1,1'-Biphenyl)-4,4' diamine,3,3' dimethoxy-	119904	Carbamide, N-methyl-N-nitroso-	684935	Chromous chloride	10049055
(1,1'-Biphenyl)-4,4'-diamine,3,3'-dimethyl-	119937	Carbamide, tho-	62588	Chrysene	218019
Bis(2-chloroethoxy) methane	111911	Carbamimidoseleonic acid	630104	Cobaltous bromide	7789437
Bis (2-chloroethyl) ether	111444	Carbamoyl chloride, dimethyl-	79447	Cobaltous formate	544183
Bis(2-chloroisopropyl) ether	108601	Carbaryl	63252	Cobaltous sulfamate	14017415
Bis(chloromethyl) ether	542881	Carbofuran	1583662	Coke Oven Emissions	N.A.
Bis(dimethylthiocarbamoyl) disulfide	137288	Carbon bisulfide	78150	Copper tt	7440508
Bis(2-ethylhexylphthalate	117817	Carbon disulfide	78150	COPPER AND COMPOUNDS	
Bromine cyanide	506683	Carbonic acid, diethanol (l) salt	6533739	Copper cyanide	544923
Bromoacetone	586312	Carbonochloronic acid, methyl ester	79221	Coumaphos	56724
Bromoform	75252	Carbon oxyfluoride	353504	Cresosol	8001589
4-Bromophenyl phenyl ether	101553	Carbon tetrachloride	56235	Cresol(a)	1319773
Brucine	357573	Carbonyl chloride	78445	m-	108394
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87883	Carbonyl fluoride	353804	p-	95487
1-Butanamine N-butyl-N-nitroso	924163	Chloral	75878	p-	106445
Butanoic acid, 4-[bis(2-chloroethyl)amino]benzene	305033	Chlorambucil	305033	Cresylic acid	1319773
1-Butanol	71363	CHLORDANE (TECHNICAL MIXTURE AND METABOLITES)		m-	108394
		Chlordane	57749	o-	95487
				p-	106445
				Crotonaldehyde	123739 4170303
				Cumene	98828

Hazardous Substance	CASRN	Hazardous Substance	CASRN	Hazardous Substance	CASRN
Cupric acetate	142712	Dichlorobenzene (mixed)	25321226	1,1-Dimethylhydrazine	57147
Cupric acetate sesquihydrate	12002038	1,2-Dichlorobenzene	95501	1,2-Dimethylhydrazine	540738
Cupric chloride	7447394	1,3-Dichlorobenzene	541731	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	298000
Cupric nitrate	3251236	1,4-Dichlorobenzene	106467	Dimethylnitrosamine	62759
Cupric oxalate	5883663	m-Dichlorobenzene	541731	alpha, alpha-Dimethyphenethylamine	122099
Cupric sulfate	7788667	o-Dichlorobenzene	95501	2,4-Dimethylphenol	105679
Cupric sulfate ammoniated	10380297	p-Dichlorobenzene	106467	Dimethyl phthalate	131113
Cupric tartrate	815827	DICHLOROBENZIDINE		Dimethyl sulfate	77781
CYANIDES		3,3'-Dichlorobenzidine	91941	Dinitrobenzene (mixed)	25154545
Cyanides (soluble cyanide salts), not elsewhere specified	57125	Dichlorobromomethane	75274	m-	99650
Cyanogen	480195	1,4-Dichloro-2-butene	784410	o-	528290
Cyanogen bromide	506683	Dichlorodifluoromethane	75718	p-	100254
Cyanogen chloride	506774	Dichlorodiphenyl dichloroethane	72548	4,6-Dinitro-o-cresol and salts	534521
1,4-Cyclohexadienedione	106514	Dichlorodiphenyl trichloroethane	50293	4,6-Dinitro-o-cyclohexylphenol	131895
Cyclohexane	110827	1,1-Dichloroethane	75343	Dinitrophenol	25550597
Cyclohexanone	106941	1,2-Dichloroethane	107082	2,5-	329715
1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77474	1,1-Dichloroethylene	107082	2,6-	573568
Cyclophosphamide	50180	1,2-trans-Dichloroethylene	75354	2,4-Dinitrophenol	51285
2,4-D Acid	94757	Dichloroethyl ether	156605	Dinitrotoluene	25321146
2,4-D Esters	94111	2,4-Dichlorophenol	111444	3,4-Dinitrotoluene	610399
	94791	2,6-Dichlorophenol	120832	2,4-Dinitrotoluene	121142
	94804	2,6-Dichlorophenol	87850	Dinoseb	68857
	1320189	2,4-Dichlorophenoxyacetic acid, salts and esters	94757	Di-n-octyl phthalate	117840
	1928367	Dichlorophenylarsine	996286	1,4-Dioxane	123911
	1928616	Dichloropropene	28636197	DIPHENYLHYDRAZINE	
	1929733	1,1-Dichloropropene	78999	1,2-Diphenylhydrazine	122667
	2971382	1,3-Dichloropropene	142289		
	25168287	1,2-Dichloropropene	78875	Diphosphoramide, octamethyl-	152169
	53467111	Dichloropropene - Dichloropropene (mixture)	8003198	Dipropylamine	142847
2,4-D, salts and esters	94757	Dichloropropene	26952238	Di-n-propylnitrosamine	621647
Daunomycin	20630813	2,3-Dichloropropene	78866	Diquat	85007
DDD	72548	1,3-Dichloropropene	542756		2764726
4,4' DDD	72548	2,2-Dichloropropionic acid	75990	Disulfoton	298044
DDE	72559	Dieldrin	62737	2,4-Dithiobis(urea)	941537
4,4' DDE	72559	1,2,3,4-Diisopropylbutane	1464535	Dithiopyrophosphoric acid, tetraethyl ester	3689245
DDT	50293	Diethylamine	109897	Diuron	330541
4,4' DDT	50293	Diethylarsine	892422	Dodecylbenzenesulfonic acid	27176870
DDT AND METABOLITES		1,4-Diethylene dioxide	123911	Endosulfan	115267
Decachlorocyclohydro-1,3,4-metheno-2H-cyclobuta(c,d)-pentalen-2-one	143500	N,N'-Diethylhydrazine	1615801	alpha-Endosulfan	959988
Diallate	2303164	O,O-Diethyl S-[2-(ethylthio)ethyl]phosphorodithioate	298044	beta-Endosulfan	33213658
Diamine	302012	O,O-Diethyl S-methyl orthophosphate	3288582	ENDOSULFAN AND METABOLITES	
Diaminotoluene	95807	Diethyl-p-nitrophenyl phosphate	311455	Enosulfan sulfate	1031078
	25376458	Diethyl phthalate	84862	Enothall	145733
	486720	O,O-Diethyl O-pyrazinyl phosphorothioate	297972	Enorn	72208
	823405	Diethylstilbestrol	56531	Enorn aldehyde	7421934
Diazinon	5333415	1,2-Dihydro-3,6-pyridazinedione	123331	ENDRIN AND METABOLITES	
Dibenz[a,h]anthracene	53703	Dihydrostilbestrol	94586	Epichlorohydrin	106896
1,2,5,6-Dibenzanthracene	53703	Disopropyl fluorophosphate	95914	Epinephrine	51434
Dibenzo[a,h]anthracene	53703	Dimethoate	80615	Ethanol	75070
1,2,7,8-Dibenzopyrene	189589	3,3'-Dimethoxybenzidine	119904	Ethanamine, 1,1-dimethyl-2-phenyl-	122088
Dibenz[a,i]pyrene	189658	Dimethylamine	124403	Ethanamine, N-ethyl-N-nitroso-	55185
1,2-Dibromo-3-chloropropene	98128	Dimethylaminocyclohexane	60117	Ethane, 1,2-dibromo-	106934
Dibutyl phthalate	84742	7,12-Dimethylbenz(a)anthracene	57976	Ethane, 1,1-dichloro-	75343
Di-n-butyl phthalate	84742	3,3'-Dimethylbenzidine	119837	Ethane, 1,2-dichloro-	107082
Diamba	1918008	alpha, alpha-Dimethylbenzylhydroperoxide	80159	Ethane, 1,1,1,2,2,2-hexachloro-	67721
Dichobenzil	1194856	3,3-Dimethyl-1-(methylthio)-2-butanone-O-[(methylamino)carbonyl] oxime	39186184	Ethane, 1,1'-(methylenebis(oxy))bis(2-chloro-	111911
Dichloro	117806	Dimethylcarbamoyl chloride	79447	Ethane, 1,1'-oxybis(2-chloro-	80297
S-(2,3-Dichlorobutyl) diisopropylthiocarbamate	2303164			Ethane, 1,1'-oxybis(2-chloro-	111444
3,5-Dichloro-N-(1,1-dimethyl-2-propenyl)benzamide	23950585			Ethane, pentachloro-	76017

Hazardous Substance	CASRN	Hazardous Substance	CASRN	Hazardous Substance	CASRN
Ethane, 1,1,1,2-tetrachloro	630206	Fumic acid	110178	Isocyanic acid, methyl ester	624839
Ethane, 1,1,2,2-tetrachloro	79345	Furan	110009	Isophorone	78591
Ethane, 1,1,2-trichloro	79005	Furan, tetrahydro-	109999	Isoprene	78795
Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)-	72435	2-Furancarboxaldehyde	98011	Isopropanolamine dodecylbenzenesulfonate	42504481
1,2-Ethanediylbiscarbamodithioic acid	111548	2,5-Furandione	108316	Isoeucrole	120581
Ethanenitrile	75058	Furfural	98011	3(2H)-isoxazolone, 5-(aminomethyl)-	2763964
Ethanethioamide	62555	Furfuran	110009	Ketthane	115322
Ethanol, 2,2-(nitrosamino)bis-	1118547	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrooureido)-	18863864	Ketone	143500
Ethanone, 1-phenyl-	98862	Glycidylaldehyde	783344	Leucocarpine	303344
Ethanoyl chloride	75365	Guanidine, N-nitroso-N-methyl-N'-nitro	70257	Lead††	7439921
Ethenamine, N-methyl-N-nitroso	4549400	Guthion	88500	Lead acetate	301042
Ethene chloro-	75014	HALOETHERS		LEAD AND COMPOUNDS	
Ethene, 2-chloroethoxy	110758	HALOMETHANES		Lead arsenate	7784409
Ethene, 1,1-dichloro-	75354	Heptachlor	76448		7645252
Ethene, 1,1,2,2-tetrachloro	127184	HEPTACHLOR AND METABOLITES		Lead chloride	10102484
Ethene, trans-1,2-dichloro-	155805	Heptachlor epoxide	1024573	Lead fluoborate	7758954
Ethion	563122	Hexachlorobenzene	118741	Lead fluoride	13814985
Ethyl acetate	141786	Hexachlorobutadiene	87683	Lead iodide	7763462
Ethyl acrylate	140885	HEXACHLOROCYCLOHEXANE (all isomers)	808731	Lead nitrate	10101630
Ethylbenzene	100414	Hexachlorocyclohexane (gamma isomer)	58899	Lead nitrate	10099748
Ethyl carbamate (Urethan)	51796	Hexachlorocyclopentadiene	77474	Lead phosphate	7448277
Ethyl cyanide	107120	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene	72208	Lead stearate	7428480
Ethyl 4,4'-dichlorobenzilate	510158	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene	80671		1072351
Ethylene dibromide	106934	Hexachloroethane	67721	Lead subacetate	58189094
Ethylene dichloride	107062	Hexachlorohexahydro-endo,endo-dimethanonaphthalene	465736	Lead sulfide	52652582
Ethylene oxide	75218	1,2,3,4,10,10-Hexachloro-1,4,4a,5,6,7,8a-hexahydro-1,4,5,8-endo,endo-dimethanonaphthalene	465736	Lead sulfite	1355326
Ethylenesulfonate (dithiocarbamic acid)	111546	1,2,3,4,10,10-Hexachloro-1,4,4a,5,6,7,8a-hexahydro-1,4,5,8-endo,exo-dimethanonaphthalene	309002	Lead sulfate	15739807
Ethylenediamine	107153	Hexachlorophene	70304		7446142
Ethylenediamine tetraacetic acid (EDTA)	60004	Hexachloropropene	1888717	Lead sulfide	1314670
Ethylenethiourea	90457	Hexaethyl tetraphosphate	757584	Lead thiocyanate	582870
Ethylenimine	151564	Hydrazine	302012	Urethane	58899
Ethyl ether	60297	Hydrazine, 1,2-diethyl-	1815801	Lithium chromate	14307358
Ethylene dichloride	75343	Hydrazine, 1,1-dimethyl-	57147	Malathion	121755
Ethyl methacrylate	97632	Hydrazine, 1,2-dimethyl-	540738	Maleic acid	110167
Ethyl methanesulfonate	62500	Hydrazine, 1,2-diphenyl-	122857	Maleic anhydride	108316
Famphur	52857	Hydrazine, methyl-	60344	Maleic hydrazide	123331
Femic ammonium citrate	1185575	Hydrazinecarboethioamide	79146	Malononitrile	108773
Femic ammonium oxalate	2944574	Hydrochloric acid	7847010	Melphalan	148823
	55488874	Hydrocyanic acid	74908	Mercaptodimethyl	2032657
Femic chloride	7705080	Hydrofluoric acid	7864393	Mercuric cyanide	562041
Femic dextran	9004864	Hydrogen cyanide	74908	Mercuric nitrate	10045940
Femic fluoride	7783508	Hydrogen fluoride	7864393	Mercuric sulfide	7783358
Femic nitrate	10421484	Hydrogen phosphide	7803512	Mercuric thiocyanate	582858
Femic sulfate	10025225	Hydrogen sulfide	7783064	Mercurous nitrate	10415755
Ferrous ammonium sulfate	10045893	Hydroperoxide, 1-methyl-1-phenylethyl-	80159		7782867
Ferrous chloride	7758943	Hydro-sulfuric acid	7783064	Mercury	7439976
Ferrous sulfate	7720787	Hydroxydimethylarsine oxide	75805	MERCURY AND COMPOUNDS	
	7782630	2-Imidazolidinethione	98457	Mercury, (acetato-O)phenyl-	62384
Fluoroacetic acid, sodium salt	62748	Isomer(1,2,3-cd)pyrene	193385	Mercury fulminate	628864
		Iron dextran	9004684	Methacrylonitrile	128967
Fluoranthene	208440	Isobutyl alcohol	78831	Methanamine, N-methyl-	124403
Fluorene	86737			Methane, bromo-	74839
Fluorine	7782414			Methane, chloro-	74673
Fluoroacetamide	640197			Methane, chloromethoxy-	107302
Formaldehyde	50000			Methane, dibromo-	74953
Formic acid	64186			Methane, dichloro-	75092
Fumic acid, mercury(II)salt	628864			Methane, dichlorodifluoro-	75718
				Methane, iodo-	74884
				Methane, oxybischloro-	542861

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Methane, tetrachloro	56235	2,7-Naphthalenedisulfonic acid,3,3'-[[3,3'-dimethyl- (1,1'-biphenyl)-4,4'-diyl]-bis(azo)]bis(5-amino- 4-hydroxy)-tetrasodium salt	72571	5-Norbornene-2,3-dimethanol,1,4,5,6,7,7- hexachloro, cyclic sulfite	115297
Methane, tetrabromo	509148	Naphthoic acid	1338245	Octamethylpyrophosphoramide	152169
Methane, tribromo	75252	1,4-Naphthoquinone	130154	Osmium oxide	20816120
Methane, trichloro	67863	1-Naphthylamine	134327	Osmium tetroxide	20816120
Methane, trichlorofluoro	75894	2-Naphthylamine	91598	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145733
Methanesulfonic acid, ethyl ester	62500	alpha-Naphthylamine	134327	1,2-Oxathiolane,2,2-dioxide	112714
Methanethiol	74831	beta-Naphthylamine	91598	2H-1,3,2-Oxazaphosphonine,2-[(2-chloroethyl) amino]tetrahydro-2-oxide	50180
Methanesulfonyl chloride, trichloro	594423	2-Naphthylamine, N,N-bis(2-chloroethyl)-	494031	Oxirane	75218
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-octachloro- 3a,3,7,7a-tetrahydro-	78448	alpha-Naphthylthiourea	86884	Oxirane, 2-(chloromethyl)-	106898
Methanoic acid	64186	Nickel II	7440020	Paralomaldehyde	30525894
4,7-Methanononan, 1,2,4,5,6,7,8,8-octachloro- 3a,4,7,7a-tetrahydro-	57749	NICKEL AND COMPOUNDS		Paraldehyde	123637
Methanol	67561	Nickel ammonium sulfate	15699180	Parathion	56382
Methapyrene	91805	Nickel carbonyl	13463393	Pentachlorobenzene	608935
Methoxymyl	18752775	Nickel chloride	7718549	Pentachlorobenzene	76017
Methoxychlor	72435	Nickel cyanide	37211055	Pentachloronitrobenzene	82688
Methyl alcohol	67561	Nickel cyanide	557197	Pentachlorophenol	87885
2-Methylaziridine	75358	Nickel hydrazide	12054487	1,3-Pentadiene	504609
Methyl bromide	74839	Nickel nitrate	14216752	Phenacetin	62442
1-Methylbutadiene	504608	Nickel sulfate	7786814	Phenanthrene	85018
Methyl chloride	74873	Nickel tetracarbonyl	13463393	Phenol	108952
Methyl chloroacetate	79221	Nicotine and salts	54115	Phenol, 2-chloro	95578
Methyl chloroform	71858	Nitric acid	7697372	Phenol, 4-chloro-3-methyl-	59507
4,4-Methylenebis(2-chloroaniline)	101144	Nitric oxide	10102439	Phenol, 2-cyclohexyl-4,6-dinitro	131895
2,2'-Methylenebis(3,4,5-trichlorophenol)	70304	p-Nitroaniline	100016	Phenol, 2,4-dichloro	120832
3-Methylcholanthrene	56495	Nitrobenzene	98853	Phenol, 2,6-dichloro	87850
Methylenes bromide	74853	Nitrogen dioxide	10102440	Phenol, 2,4-dimethyl-	105679
Methylene chloride	75092	Nitrogen(II) oxide	10544726	Phenol, 2,4-dinitro	51285
Methylene oxide	50000	Nitrogen(IV) oxide	10102440	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	88857
Methyl ethyl ketone	78833	Nitroglycerine	55630	Phenol, 2,4-dinitro-6-methyl-, and salts	534521
Methyl ethyl ketone peroxide	1338234	Nitrophenol (mixed)	25154558	Phenol, 4-nitro	100027
Methyl hydrazine	60344	m-	554847	Phenol, pentachloro	87885
Methyl iodide	74864	o-	86755	Phenol, 2,3,4,6-tetrachloro	58902
Methyl isobutyl ketone	108101	p-	100027	Phenol, 2,4,5-trichloro	95954
Methyl isocyanate	624639	p-Nitrophenol	100027	Phenol, 2,4,6-trichloro	88062
2-Methylisocyanate	75865	2-Nitrophenol	86755	Phenol, 2,4,6-trinitro, ammonium salt	131748
Methylmercaptan	74831	4-Nitrophenol	100027	Phenyl dichloroacetate	695286
Methyl methacrylate	80628	NITROPHENOLS		1,10-(1,2-Phenylenepyrane	193395
N-Methyl-N-nitro-N-nitrosoguanidine	70257	2-Nitropropane	79469	Phenylmercuric acetate	62384
Methyl parathion	298000	NITROSAMINES		N-Phenythiourea	103855
4-Methyl-2-pentanone	108101	N-Nitroso-N-butylamine	924163	Phorate	298022
Methylthiourea	68042	N-Nitrosodiethanolamine	1118547	Phosgene	75445
Mevinphos	7786347	N-Nitrosodimethylamine	55185	Phosphine	7803512
Mexacarbate	315184	N-Nitrosodimethylamine	62759	Phosphoric acid	7664382
Mitomycin C	50077	N-Nitrosodiphenylamine	86306	Phosphoric acid,diethyl p-nitrophenyl ester	311455
Monoethylamine	75047	N-Nitroso-N-propylamine	621647	Phosphoric acid, lead salt	7448277
Monomethylamine	74895	N-Nitroso-N-ethylurea	759738	Phosphorodithioic acid, O,O-diethyl S-methylester	3288582
Naled	300765	N-Nitroso-N-methylurea	684835	Phosphorodithioic acid, O,O-diethyl S-(ethylthio) methyl ester	298022
5,12-Naphthacenedione, (8S-cis)-8-acetyl-10- [3-amino-2,3,6-trideoxy-alpha-L-xyso- hamopyranosyl]oxy]-7,8,9,10-tetrahydro- 6,8,11-methoxy-1-methoxy-	20830813	N-Nitroso-N-methylurethane	615532	Phosphorodithioic acid, O,O-dimethyl S- [2(methylamino)-2-oxoethyl] ester	60515
Naphthalene, 2-chloro	91203	N-Nitrosomethylvinylamine	4548400	Phosphorofluoric acid,bis(1-methylethyl)ester	55914
Naphthalene, 2-chloro	91587	N-Nitrosoopiperidine	100754	Phosphorothioic acid,O,O-diethyl O-(p-nitrophenyl) ester	56382
1,4-Naphthalenedione	130154	N-Nitrosoopropidine	930562	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297972
		Nitrotoluene	1321126	Phosphorothioic acid, O,O-dimethyl O-[p- [(dimethylamino)-sulfonyl]phenyl] ester	52857
		m-	89081		
		o-	88722		
		p-	88990		
		S-Nitro-o-toluidine	99558		

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Phosphorus	7723140	Propionic acid, 2-(2,4,5-trichlorophenoxy)-	93721	Sodium phosphate, dibasic	7558794
Phosphorus oxychloride	10025873	Propionic anhydride	123626	.....	10039324
Phosphorus pentasulfide	1314803	.....	.....	.....	10140855
Phosphorus sulfide	1314803	n-Propylamine	107108	Sodium phosphate, tribasic	7601549
Phosphorus trichloride	7719122	Propylene dichloride	78875	.....	7785844
PHthalate ESTERS .....	.....	Propylene oxide	75569	.....	10101890
Phthalic anhydride	85449	1,2-Propylenimine	75558	.....	10361894
2-Picoline	109088	2-Propyn-1-ol	107197	.....	7758294
Plumbene, tetraethyl-	78002	Pyrene	129000	Sodium selenate	10124558
POLYCHLORINATED BIPHENYLS (PCBs)	1336363	Pyrethrins	121299	.....	10102188
.....	12874112	.....	121211	.....	7782823
.....	11104282	4-Pyridinemine	8003347	4,4'-Stilbenediol, alpha,alpha'-diethyl-	56531
.....	11141165	Pyridine	504245	Streptozotocin	18883664
.....	53469219	Pyridine, 2-[(2-dimethylaminoethyl)-2-phenylamino]-	110861	Strontium chromate	7789062
.....	12872296	Pyridine, hexahydro-N-nitroso-	91805	Strontium sulfide	1314961
.....	11097691	Pyridine, 2-methyl-	100754	Strychnidin-10-one, and salts	57249
.....	11098625	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	109068	Strychnidin-10-one, 2,3-dimethoxy-	357573
POLYNUCLEAR AROMATIC HYDROCARBONS .....	.....	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	54115	Strychnine and salts	57249
Potassium arsenate	7784410	Pyrophosphoric acid, tetraethyl ester	109068	Styrene	100425
Potassium arsenite	10124502	Pyrois, tetrahydro-N-nitroso-	58042	Sulfur hydride	7783064
Potassium bichromate	7778509	Quinoline	107493	Sulfur monochloride	12771083
Potassium chromate	7789006	RADIONUCLIDES	930552	Sulfur phosphide	1314803
Potassium cyanide	151508	Rasarpine	91225	Sulfur selenide	7488564
Potassium hydroxide	1310583	Resorcinol	90555	Sulfuric acid	7664939
Potassium permanganate	7722647	Saccharin and salts	108483	Sulfuric acid, dimethyl ester	8014957
Potassium silver cyanide	508618	Saltol	81072	Sulfuric acid, thallium(I) salt	77781
Pronamide	23950585	Selenious acid	94597	.....	7446186
1-Propanal, 2,3-epoxy-	785344	Selenium tetrachloride	7783008	.....	10031591
Propanal, 2-methyl-2-(methylthio)-O-((methylamino) carbonyl)oxime	118063	SELENIUM AND COMPOUNDS	7782492	2,4,5-T	93765
1-Propanamine	107108	Selenium dioxide	7448084	2,4,5-T acid	93765
1-Propanamine, N-propyl-	142647	Selenium disulfide	7488564	2,4,5-T amines	2008480
Propane, 1,2-dibromo-3-chloro-	96128	Selenium oxide	7448084	.....	6389966
Propane, 2-nitro-	79489	Selenourea	630104	.....	6369977
Propane, 2,2-dibromo-2-chloro-	108601	L-Serine, diacetate (ester)	115026	2,4,5-T esters	1319728
1,3-Propane sultone	1120714	Silver tetrachloride	7440224	.....	3813147
Propanedinitrile	109773	SILVER AND COMPOUNDS .....	.....	.....	93796
Propanenitrile	107120	Silver cyanide	508649	.....	2545597
Propanenitrile, 3-chloro-	542767	Silver nitrate	7761886	.....	61792072
Propanenitrile, 2-hydroxy-2-methyl-	75865	Silver	93721	.....	1928478
1,2,3-Propanetriol, trinitrate	55630	Sodium	7440235	2,4,5-T salts	25168154
1-Propanol, 2,3-dibromo-, phosphate (3:1)	126727	Sodium arsenate	7631862	TDE	72548
1-Propanol, 2-methyl-	78831	Sodium arsenite	7784485	1,2,4,5-Tetrachlorobenzene	95943
2-Propanone	67641	Sodium azide	26628228	2,3,7,8-Tetrachlorodibenzo-p-dioxin(TCDD)	1748016
2-Propanone, 1-bromo	506312	Sodium bichromate	10588019	1,1,1,2-Tetrachloroethane	630206
Propargite	2312358	Sodium bifluoride	1333831	1,1,2,2-Tetrachloroethane	76345
Propargyl alcohol	107197	Sodium bisulfite	7631905	Tetrachloroethylene	127184
2-Propenal	107028	Sodium chromate	7775113	2,3,4,6-Tetrachlorophenol	58902
2-Propenamide	79061	Sodium cyanide	143339	Tetraethylthiopyrophosphate	3689245
Propene, 1,3-dichloro-	542756	Sodium dodecylbenzene sulfonate	25155300	Tetraethyl lead	78002
1-Propene, 1,1,2,3,3,3-hexachloro-	1886717	Sodium fluoride	7681494	Tetraethyl pyrophosphate	107493
2-Propenenitrile	107131	Sodium hydrosulfide	16721805	Tetrahydrofuran	109999
2-Propenenitrile, 2-methyl-	128987	Sodium hydroxide	1310732	Tetranitromethane	509148
2-Propenoic acid	79107	Sodium hypochlorite	7681529	Tetraphosphoric acid, hexaethyl ester	757584
2-Propenoic acid, ethyl ester	140685	Sodium methylate	124414	Thalic oxide	1314325
2-Propenoic acid, 2-methyl-, ethyl ester	97632	Sodium nitrite	7632000	Thallium tetrachloride	7440280
2-Propenoic acid, 2-methyl-, methyl ester	80626	.....	.....	THALLIUM AND COMPOUNDS .....	.....
2-Propen-1-ol	107186	.....	.....	Thallium(I) acetate	563688
Propionic acid	79084	.....	.....	Thallium(I) carbonate	6533739
.....	.....	.....	.....	Thallium(I) chloride	7791120
.....	.....	.....	.....	Thallium(I) nitrate	10102451

Hazardous Substance	CASRN	Hazardous Substance	CASRN
Thallium(I) oxide	1314325	Caesium	
Thallium(I) selenide	12039520	Chromium	
Thallium(I) sulfate	7446186	Lead	
	10031591	Mercury	
Thioacetamide	62555	Selenium	
Thiofanoz	39196184	Silver	
Thiomidodicarbonic diamide	541537	Endrin	
Thiomethanol	74931	Lindane	
Thiophenol	108985	Methoxychlor	
Thiosemicarbazide	79196	Toxaphene	
Thiourea	62566	2,4-D	
Thiourea, (2-chlorophenyl)-	5344821	2,4,5-TP	
Thiourea, 1-naphthalenyl-	86884	Uracil, 5-(bis(2-chloroethyl)amino)-	66751
Thiourea, phenyl-	103853	Uracil mustard	66751
Thiram	137288	Uranyl acetate	541093
Toluene	108683	Uranyl nitrate	10102064
Toluenediamine	95807		36478769
	25378458	Vanadic acid, ammonium salt	7803556
	496720	Vanadium(V) oxide	1314621
	823405	Vanadium pentoxide	1314621
Toluene diisocyanate	584849	Vanadyl sulfate	27774136
	91087	Vinyl acetate	108054
	28471825	Vinyl chloride	75014
o-Toluidine hydrochloride	636215	Vinylidene chloride	76354
Toxaphene	8001362	Warfarin	81812
2,4,5-TP acid	93721	Xylene (mixed)	1330207
2,4,5-TP acid esters	32534955	m-	108383
1H-1,2,4-Triazol-3-amine	61625	o-	95476
Trichlorfon	52586	p-	106423
1,2,4-Trichlorobenzene	120821	Xylenol	1300716
1,1,1-Trichloroethane	71556	Yohimben-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methylester	50555
1,1,2-Trichloroethane	79005	Zinc	
Trichloroethane	79016	Zinc	
Trichloroethylene	79016	Zinc	
Trichloromethanesulfonyl chloride	594423	Zinc	
Trichloromono-fluoromethane	75694	Zinc	
Trichlorophenol	25167622	Zinc	
2,3,4-Trichlorophenol	15860660	Zinc	
2,3,5-Trichlorophenol	833738	Zinc	
2,3,6-Trichlorophenol	933735	Zinc	
2,4,5-Trichlorophenol	96954	Zinc	
2,4,6-Trichlorophenol	88062	Zinc	
3,4,5-Trichlorophenol	609196	Zinc	
2,4,5-Trichlorophenol	96954	Zinc	
2,4,6-Trichlorophenol	88062	Zinc	
2,4,5-Trichlorophenoxyacetic acid	93765	Zinc	
Triethanolamine dodecylbenzenesulfonate	27323417	Zinc	
Triethylamine	121448	Zinc	
Trimethylamine	75503	Zinc	
sym-Trinitrobenzene	96354	Zinc	
1,3,5-Triazine, 2,4,6-trimethyl-	123637	Zinc	
Tris(2,3-dibromopropyl) phosphite	126727	Zinc	
Trypan blue	72571	Zinc	
Unlabeled Hazardous Wastes		Zinc	
Characteristic of Ignitability		Zinc	
Characteristic of Corrosivity		Zinc	
Characteristic of Reactivity		Zinc	
Characteristic of EP Toxicity		Zinc	
Arsenic		Zinc	
Barium		Zinc	

†† no reporting of releases of this hazardous substance is required if diameter of the pieces of the solid metal released is equal to or exceeds 100 micrometers (0.004 inches)
††† the reportable quantity for asbestos is limited to friable forms only

APPENDIX C**LIST OF AGENCIES DESIGNATED TO RECEIVE NOTIFICATIONS****Alabama (EPA Form)**

Alabama Department of Environmental Mgmt.
Ground Water Section/Water Division
1751 Federal Drive
Montgomery, Alabama 36130

Alaska (EPA Form)

Department of Environmental Conservation
Pouch O
Juneau, Alaska 99811
907/465-2653

American Samoa (EPA Form)

Executive Secretary
Environmental Quality Commission
Office of the Governor
American Samoan Government
Pago Pago, American Samoa 96799
Attention: UST Notification

Arizona (EPA Form)

Attention: UST Coordinator
Arizona Department of Health Services
Environmental Health Services
2005 N. Central
Phoenix, Arizona 85004

Arkansas (EPA Form)

Arkansas Department of Pollution Control and Ecology
P.O. Box 9583
Little Rock, Arkansas 72219
501/562-7444

California (State Form)

Ed Anton
California Water Resources Control Board
P.O. Box 100
Sacramento, California 95801
916/445-9552

Colorado (EPA Form)

Kenneth Mesch, Section Chief
Colorado Department of Health
Waste Management Division
Underground Tank Program
4210 East 11th Avenue
Denver, Colorado 80220
303/320-8333 Ext. 4364

Connecticut (State Form)

Hazardous Materials Management Unit
Department of Environmental Protection
State Office Building
165 Capitol Avenue
Hartford, Connecticut 06106

Delaware (State Form)

Division of Air and Waste Management
Department of Natural Resources and Environmental Control
P.O. Box 1401
89 Kings Highway
Dover, Delaware 19903
302/736-5409

District of Columbia (EPA Form)

Attention: UST Notification Form
Department of Consumer and Regulatory Affairs
Pesticides and Hazardous Waste Management Branch
Room 114
5010 Overlook Avenue, S.W.
Washington, D.C. 20032

Florida (State Form)

Florida Department of Environmental Regulation
Solid Waste Section
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301
904/487-4398

Georgia (EPA Form)

Georgia Department of Natural Resources
Environmental Protection Division
Underground Storage Tank Program
3420 Norman Berry Drive
Hapeville, Georgia 30354

Guam (State Form)

James B. Branch, Administrator
Guam Environmental Protection Agency
P.O. Box 2999
Agana, Guam 96910
Overseas Operator (Commercial Call 646-8863)

Hawaii (EPA Form)

Chief, Noise and Radiation Branch
Hawaii Department of Health
591 Ala Moana Boulevard
Honolulu, Hawaii 96801
808/548-4129

Idaho (EPA Form)

Underground Storage Tank Coordinator
Water Quality Bureau
Idaho Department of Health & Welfare
Division of Environment
450 W. State Street
Boise, Idaho 83720
208/334-4251

Illinois (EPA Form)

Underground Storage Tank Coordinator
Division of Fire Prevention
Office of State Fire Marshal
3150 Executive Park Drive
Springfield, Illinois 62703-4599

Indiana (EPA Form)

Division of Land Pollution Control, UST Program
Indiana State Board of Health
P.O. Box 7015
Indianapolis, Indiana 46207
317/243-5060

Iowa (State Form)

Iowa Department of Water, Air and Waste Management
900 East Grand
Des Moines, Iowa 50319
515/281-8692

Kansas (EPA Form)

Office of Environmental Geology
Kansas Department of Health & Environment
Forbes Field, Building 740
Topeka, Kansas 66620
913/862-9360 Ext. 221

Kentucky (State Form)

Natural Resources Cabinet
Division of Waste Management, Attention: Vicki Pettus
18 Reilly Road
Frankfort, Kentucky 40601
502/564-6716

Louisiana (State Form)

Patricia L. Norton, Secretary
Louisiana Department of Environmental Quality
P.O. Box 44066
Baton Rouge, Louisiana 70804
504/342-1265

Maine (State Form)

Attention: Underground Tanks Program
Bureau of Oil & Hazardous Material Control
Department of Environmental Protection
State House — Station 17
Augusta, Maine 04333
207/289-2651

Maryland (EPA Form)

Science and Health Advisory Group
Office of Environmental Programs
201 West Preston Street
Baltimore, Maryland 21201

Massachusetts (EPA Form)

UST Registry, Department of Public Safety
1010 Commonwealth Avenue
Boston, Massachusetts 02215
617/566-4500

Michigan (EPA Form)

Ground Water Quality Division
Department of Natural Resources
Box 30157
Lansing, Michigan 48909

Minnesota (State Form)

Underground Storage Tank Program
Division of Solid and Hazardous Wastes
Minnesota Pollution Control Agency
1935 West County Road, B-2
Roseville, Minnesota 55113

Mississippi (EPA Form)

Department of Natural Resources
Bureau of Pollution Control
P.O. Box 10385
Jackson, Mississippi 39209

Missouri (EPA Form)

Gordon Ackley, UST Coordinator
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102

Montana (EPA Form)

Solid and Hazardous Waste Bureau
Department of Health and Environmental Science
Cogswell Building, Room B201
Helena, Montana 59620

Nebraska (EPA Form)

Nebraska State Fire Marshal
P.O. Box 94677
Lincoln, Nebraska 68509-4677

Nevada (EPA Form)

Attention: Underground Storage Tanks
Division of Environmental Protection
Department of Conservation and Natural Resources
Capitol Complex
201 S. Fall Street
Carson City, Nevada 89710
800/992-0900 Ext. 4670

New Hampshire (EPA Form)

Water Supply and Pollution Control Commission
Hazen Drive
P.O. Box 95
Concord, New Hampshire 03301
Attention: UST Registration
603/271-3503

New Jersey (State Form)

Underground Storage Tank Coordinator
Department of Environmental Protection
Division of Water Resources (CN-029)
Trenton, New Jersey 08625
609/292-0424

New Mexico (EPA Form)

New Mexico Environmental Improvement Division
Ground Water/Hazardous Waste Bureau
P.O. Box 968
Santa Fe, New Mexico 87504
505/827-2933 or 505/827-2918

New York (EPA Form)

Bulk Storage Section
Division of Water
Department of Environmental Conservation
50 Wolf Road, Room 326
Albany, New York 12233-0001
518/457-4351

North Carolina (EPA Form)

Division of Environmental Mgmt./Ground Water Section
Dept. of Natural Resources & Community Development
P.O. Box 27687
Raleigh, North Carolina 27611
919/733-5083

North Dakota (State Form)

Division of Hazardous Waste Mgmt. and Special Studies
North Dakota Department of Health
Box 5520
Bismarck, North Dakota 58502-5520

Northern Mariana Islands (EPA Form)

Chief
Division of Environmental Quality
P.O. Box 1304
Commonwealth of Northern Mariana Islands
Saipan, CM 96950
Overseas Operator: 6984
Cable Address: GOV. NMI Saipan

Ohio (State Form)

State Fire Marshal's Office, UTN
Department of Commerce
8895 E. Main Street
Reynoldsburg, Ohio 43068
State Hotline 800/282-1927

Oklahoma (EPA Form)

Underground Storage Tank Program
Oklahoma Corporation Comm.
Jim Thorpe Building
Oklahoma City, Oklahoma 73105

Oregon

Underground Storage Tank Program
Hazardous and Solid Waste Division
Department of Environmental Quality
P.O. Box 1760
Portland, Oregon 97207
503/229-5788

Pennsylvania (EPA Form)

Pennsylvania Department of Environmental Resources
Bureau of Water Quality Management/Ground Water Unit
9th Floor, Fulton Building
P.O. Box 2063
Harrisburg, Pennsylvania 17120

Puerto Rico (EPA Form)

Director, Water Quality Control Area
Environmental Quality Board
Commonwealth of Puerto Rico
P.O. Box 11488
Santurce, Puerto Rico 00910
809/725-0717

Rhode Island (EPA Form)

UST Registration
Department of Environmental Management
204 Cannon Building
75 Davis Street
Providence, Rhode Island 02908
401/277-2234

South Carolina (State Form)

Attention: Susana Workman
Groundwater Protection Division
South Carolina Dept. of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201
803/758-5213

South Dakota (EPA Form)

Office of Water Quality
Department of Water and Natural Resources
Joe Foss Building
Pierre, South Dakota 57501

Tennessee (EPA Form)

Terry K. Cothron, Director
Division of Ground Water Protection
Tennessee Department of Health and Environment
150 Ninth Avenue, North
Nashville, Tennessee 37219-5404
615/741-7206

Texas (EPA Form)

Underground Storage Tank Program
Texas Water Commission
P.O. Box 13087
Austin, Texas 78711

Utah (EPA Form)

Kenneth L. Alkema
Division of Environmental Health
P.O. Box 45500
Salt Lake City, Utah 84145-0500

Vermont (State Form)

Underground Storage Tank Program
Vermont AEC/Waste Management Division
State Office Building
Montpelier, Vermont 05602
802/828-3395

Virginia (EPA Form)

Russell P. Ellison, III, P.G.
Virginia Water Control Board
P.O. Box 11143
Richmond, Virginia 23230-1143
804/257-6685

Virgin Islands (EPA Form)

205(J) Coordinator
Division of Natural Resources Management
14 F Building 111, Watergut Homes
Christianstead, St. Croix, Virgin Islands 00820

Washington (State Form)

Earl W. Tower, Supervisor
Department of Ecology, M/S PV-11
Management Division, Solid and Hazardous Waste
Olympia, Washington 98504-8711
206/459-6316

West Virginia (EPA Form)

Attention: UST Notification
Solid and Hazardous Waste/Ground Water Branch
West Virginia Department of Natural Resources
1201 Greenbriar Street
Charleston, West Virginia 25311

Wisconsin (State Form)

Bureau of Petroleum Inspection
P.O. Box 7969
Madison, Wisconsin 53707
608/266-7605

Wyoming (EPA Form)

Water Quality Division
Department of Environmental Quality
Herschler Building, 4th Floor West
122 West 25th Street
Cheyenne, Wyoming 82002
307/777-7781

Petroleum Producers**Petroleum Refiners****Hydrocarbon Waste Recyclers**

Waste oil processors
Re-refiners
Solvent reclaimers

Petroleum Wholesalers

Bulk petroleum storage facilities
Wholesale petroleum marketers (jobbers)

Petroleum Retailers

Service Stations
Majors
Independents
Marinas
Convenience stores
Agricultural cooperatives

Transportation Services

Airports/airlines
Aircraft retail dealers
Trucklines/common carriers
Railroads
Taxi/limousine services
Trolley lines/local railroads
Bus companies (public and private)
School buses
Ambulance services
Water transportation
Freighters, tankers
Barges
Ferries
Lighters, tugboats, excursion boats, sight-seeing boats, water taxis

Automotive Services

Car washes
Automotive repair
Car & truck renting/leasing
Car, truck, motorcycle retail dealers
Parking lots and garages
Automobile towing
Automotive recyclers

**Car, Truck, and Boat Fleets and Equipment
Public Agencies****Federal**

Military installations
National Guard armories
Park Service & conservation agencies
Post Office
Agency/departmental car pools
Public Health Service
U.S. Coast Guard

State

Departmental car pools
Highway departments
Highway Patrol
County/Township
Transit agencies
Highway/road departments
Departmental car pools
Sheriff's department

City/Town

Transit agencies
Public works department
Departmental car pools
Police/marshal
Fire department
Ambulance, paramedic service

Other

Turnpike authorities
Fire districts
Ambulance/paramedic districts
Sewer/sanitation districts
Water districts
School districts

**Car, Truck, and Boat Fleets and Equipment
Private**

Sanitation services/refuse removal
Delivery services
Dry cleaners
Laundries
Dairies
Repair services (e.g., plumbing)
Utility companies
Telephone companies
Construction industries
Buildings
Highway and street

*Many of the businesses on this list may store regulated substances and in addition store petroleum products for car or truck fleets.

Bridge, tunnel, and elevated highway
 Water, sewer, pipeline, communication,
 and powerline
 Heavy construction
 Fishing fleets
 Beverage distributors

Farmers and Ranchers

Chemical Manufacturing

Industrial organic chemicals
 Plastics and synthetic resins
 Synthetic rubber
 Manmade fibers
 Drugs
 Soaps and detergents and cleaning products
 Toiletries
 Paints, varnishes, and other coatings
 Industrial inorganic chemicals
 Agricultural chemicals
 Fertilizers
 Pesticides and herbicides
 Other chemicals, adhesives, and sealants
 Explosives
 Printing ink

Metal and Metal Products Manufacturing

Metal smelting, refining, and manufacturing
 Automobile manufacture
 Manufacture of aircraft, ships, railroad, and
 other manufactured equipment
 Electrical machinery and equipment
 Electrical components
 Scientific, medical, and precision equipment
 Engines and heavy equipment (nonelectrical)

Etching and electroplating
 Other fabricated metal products (can, cutlery,
 structural, and sheet metal)

Other Manufacturing

Food products
 Tobacco manufacturers
 Textile mills
 Apparel manufacturers
 Lumber and wood products
 Furniture and fixtures
 Paper and pulp mills
 Paper converters
 Printers and publishers
 Tires and other plastic and rubber products
 Leather tanning and finishing
 Leather products
 Stone, clay, glass, and concrete and their
 products

- Institutions

Elementary and secondary schools
 Colleges and universities
 Prisons
 Hospitals

Service Industries

Golf courses
 Auto race tracks
 Amusement parks
 Funeral homes
 Pest control services
 Lawn and garden services
 Dry cleaners

Potential methods for direct contacts with underground storage tank owners include:

- SIC Codes
- Trade associations
- Other State and local agencies

The appropriateness of these methods varies depending on the type of UST owner being contacted. Although each one of the techniques described below will greatly improve contact with many types of UST owners, it is recommended that you use a combination of techniques along with general publicity on the notification program.

Table E-1 matches categories of potential UST owners with methods for contacting them. Standard Industrial Classification (SIC) Codes, where relevant, are listed for each category of UST owner. Then relevant trade associations along with other likely methods for contacting a particular group are listed. This table should be used as a starting point only. Your State will have its own unique agencies and associations that may be able to assist you in reaching some categories of UST owners. It may be useful to circulate Table E-1 among other State departments or agencies to obtain their suggestions.

Addresses and other information about the associations listed in Table E-1 can be found in Tables E-2, E-3, and E-4.

SIC CODES

Standard Industrial Classification (SIC) Codes are a standard set of codes developed by the Federal government to classify all industries. SIC Codes can be used to obtain lists of potential owners of USTs in your State. The limitations of SIC Codes should be clearly recognized, however. The SIC system will not necessarily correlate well with the industry descriptions you are using. This is especially true for new industries. For instance, there is no separate classification for convenience stores, and laundries must be described by five SIC Codes to reach them all. In spite of these limitations, SIC Codes can be a valuable tool for reaching many categories. Florida used the SIC Codes to define a mailing list that they purchased for a direct mailing program. They targeted fleet operations (literally anyone moving people or products). The SIC Code list was then merged with lists from State agencies.

TRADE ASSOCIATIONS

Many UST owners belong to trade associations. Associations vary in size depending on the type of group they represent and on how completely they cover the group they represent. Additionally, there may be more than one association competing for the same membership.

Trade associations having a national membership only may be of assistance to you. For example, they should be able to provide a list of their membership by State. They may also be the best way to contact some specialized businesses. A list of national associations is included in Table E-2. The associations' addresses, information about their membership, and names of their publications are included.

Although many trade associations are national in scope, many have State, regional, or local chapters that can be excellent resources for mailing lists. Table E-3 provides a list of trade associations having State or regional affiliations along with addresses, telephone numbers, information about the associations' membership, and names of their publications. There may also be some active regional associations in your State that have no national affiliation. (The fishing industry is an example.) These regional or State associations could be good targets for press kits, as they may have newsletters or other mailings to their membership.

Trade associations exist as a service to their membership. If an association sees that it can help its membership by providing them information on your State notification program, or by providing you with a mailing list so that all of their members can easily obtain the notification form, they are likely to do so.

STATE AND LOCAL AGENCIES

State and local agencies may be of assistance in contacting particular groups of UST owners. Owners of USTs are often regulated by some sector of government. As regulations vary from State to State, you will have to investigate your own State programs. Possible sources of UST owner lists include a Bureau of Weights and Measurements office, the Fire Marshal's office, tax offices, and State import/export offices. Table E-4 includes some other agencies that may be of use in reaching particular types of UST owners.

ENVIRONMENTAL GROUPS

Environmental groups can play a role in contacting underground storage tank owners through publicity they can generate or possibly even by distributing forms. In addition, environmental groups may have an interest in locating abandoned tanks. Table E-5 lists national environmental groups and Table E-6 lists State and regional environmental groups.

USING THIS APPENDIX

As an example of how to use this appendix, assume that you want to contact all airports and airlines in your State. This category of UST owner is listed under "Transportation Services" in Table E-1. An SIC is

listed; this could be used for purchasing a mailing list (see Appendix G).

Four trade associations are listed: two are national and two have State or regional affiliations. These can be looked up in Tables E-2 and E-3. If the descriptions of membership sound useful, you can call or write (phone numbers and addresses are provided) to see if these organizations can provide lists of members in your State.

Another contact—the Federal Aviation Administration—is listed. This agency is another possible source of information on airports and airlines.

By using a combination of the sources in Table E-1, it should be possible to reach tank owners in each relevant category in your State.

Table E-1 Potential Contacts for Owners of Underground Storage Tanks

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS ²
Petroleum Producers		Liaison Committee of Cooperating Oil and Gas Associations Mid Continent Oil & Gas Association	
Petroleum Refiners	291	Mid Continent Oil & Gas Association American Independent Refiners Association ¹ National Petroleum Refiners Association ¹ American Petroleum Institute ¹	
Hydrocarbon Waste Recyclers		National Association of Recycling Industries ¹	
Waste oil processors		National Oil Recyclers Association	
Re-Refiners		Association of Petroleum Re-Refiners ¹	
Solvent reclaimers		National Association of Solvent Recyclers ¹	
Petroleum Wholesalers	517		
Bulk petroleum storage facilities	5171	Independent Liquid Terminals Association	
Wholesale petroleum marketers (jobbers)	5172	National Oil Jobbers Council Petroleum Marketers Association of America American Petroleum Institute ¹	
Petroleum Retailers			National Conference on Weights and Measures ¹ North American Gasoline Tax Conference State Bureau of Weights and Measures
Service Stations			
Majors	5541	American Petroleum Institute ¹	
Independents	5541	Gasoline and Automotive Service Dealers Association ¹ Independent Gasoline Marketers Council ¹ Petroleum Marketers Association of America Service Station Dealers of America Society of Independent Gasoline Marketers of America ¹	
Marinas	5541	American Boat Builders and Repairers ¹ National Marina Association ¹	
Convenience Stores		National Association of Convenience Stores ¹	
Agricultural Cooperatives		Farmland Industries National Council of Farmer Cooperatives Universal Cooperatives	

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS²
Transportation Services	40, 41, 421, 44, 45		Department of Commerce Department of Transportation Federal Aviation Administration (FAA)
Airports/airlines	45	Regional Airline Association Seaplane Pilots Association Airport Operators Council ¹ National Air Transport Association ¹ International Society of Transport Aircraft Traders ¹	
Aircraft retail dealers	559	American Movers Conference American Trucking Association Private Carrier Conference Regional and Distribution Carriers American Short Line Railroad Association Eastern Railroad Association Association of American Railroads ¹ International Taxicab Association ¹	
Trucklines/common carriers	421		
Railroads	40		
Taxi/limosine services	4121, 4119		City licensing
Trolley lines/ local railroads	4111	American Short Line Railroad Association	
Bus companies	4111, 4119, 413, 414, 4141	American Bus Association National Bus Traffic Association ¹	
School buses	415	National School Transportation Association	State licensing
Ambulance services	4119	American Ambulance Association ¹	State licensing
Water transportation	44	National Maritime Council ¹	Port authorities
Freighters, tankers	441, 442, 443	Independent U.S. Tanker Owners Committee ¹ National Cargo Bureau ¹	
Barges	443, 444		
Ferries	443, 444, 445	International Marine Transit Association ¹	
Lighters, tugboats excursion boats, sightseeing boats, water taxis	445	American Waterways Operators ¹ International Passenger Ship Association ¹ Marine Towing and Transportation Employers Association ¹	Interstate Commerce Commission
Automotive Services			
Car washes	7542	International Carwash Association/ National Carwash Council	
Automotive repair	753	Automotive Service Councils Independent Automotive Service Association Society of Collision Repair Specialists Automotive Legislative Council of America	

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS²
Automotive Services (continued)			
Car & truck renting/leasing	751	Truck Renting and Leasing Association American Car Rental Association ¹	
Car, truck, motor- cycle retail dealers	556, 557, 551, 552 559	Automotive Trade Association Managers National Automobile Dealers Association National Independent Automobile Dealers Association American International Automobile Dealers Association ¹	
Parking lots & garages		Institutional and Municipal Parking Congress ¹ National Parking Association ¹	
Automobile towing	7549	Interstate Towing Association Towing and Recovery Association of America Automotive Dismantlers and Recyclers Association	State, county, or city licenses
Automotive recyclers			
Car, Truck, and Boat Fleets & Equipment - Public Agencies		National Association of Fleet Administrators	
Federal			
Military installations	9711		
National Guard armories	9711		
Park Service & conservation agencies	9512		
Post Office	43		
Agency/department car pools			
Public Health Service	9431		
U.S. Coast Guard	9621		
State			Council of State Governments National Governors Association
Departmental car pools			
Highway departments	9621		American Association of State Highway and Transportation Officials
Highway patrol	9221		
County/Township			National Association of Counties National Association of Towns & Townships

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS ²
Car, Truck, and Boat Fleets & Equipment - Private Agencies		National Association of Fleet Administrators	
Sanitation services/ refuse removal	4953	National Solid Waste Management Association ¹	Governmental Refuse Collection and Disposal Association
Delivery services	421, 7319, 50, 51	American Package Express Carriers Association ¹	
Dry cleaners	7216, 7217	International Fabricare Institute ¹ International Drycleaners Congress	
Laundries	7211, 7212, 7213, 7214, 7218	Institute of Industrial Launderers National Association of Institutional Laundry Managers	
Dairies	5143	Dairy Industry Committee ¹ National Dairy Council	Health department licenses
Repair services (plumbing, electri- cal, etc.)	76, 17	National Association of Plumbing- Heating-Cooling Contractors	
Utility companies	49	American Gas Association ¹ Edison Electric Institute ¹ National Rural Electric Cooperative Association	
Telephone companies	4811	North American Telecommunications Association ¹ United States Telephone Association ¹	Bell Telephone Companies AT&T Systems
Construction industries	15, 16, 17	National Construction Industry Council	
Buildings	15	Associated Builders and Contractors National Association of Home Builders of the U.S. National Electrical Contractors Association	
Highway & street	1611	American Road and Transportation Builders Association	
Bridge, tunnel, & elevated highway	1622	American Road and Transportation Builders Association	
Water, sewer, pipeline, communi- cation & powerline	1623	National Electrical Contractors Association	
Heavy construction	1629	Associated General Contractors of America	
Fishing fleets	091	National Federation of Fishermen ¹ United States Tuna Foundation ¹ Others ¹	

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

³ There are regional associations that are related to types of fish or locations where fishing is conducted.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS²
Car, Truck & Boat Fleets (continued)			
Highway road departments	9621		
Departmental car pools			
Sheriff department	9221		National Sheriffs' Association
City/Town			National Association of Towns & Townships National League of Cities U.S. Conference of Mayors Association of State and Territorial Solid Waste Management Officials' Association of Metropolitan Sewerage Agencies American Public Works Association Governmental Refuse Collection and Disposal Association
Public works department	9511, 494, 445		
Departmental car Pools			
Police/Marshal	9221		International Association of Chiefs of Police Fire Marshals Association of North America National Fire Protection Association State, county, or city licensing
Fire department	9224		
Ambulance/para- medic service	4119	American Ambulance Association ¹	
Other			
Turnpike authorities	9621		International Bridge, Tunnel, and Turnpike Association Fire Marshals Association of North America National Fire Protection Association State, county, or city licensing
Fire districts	9224		
Ambulance/para- medic districts	4119	American Ambulance Association ¹	
Sewer/sanitation districts	9511, 495		Association of State and Territorial Solid Waste Management Officials' Association of Metropolitan Sewerage Agencies Governmental Refuse Collection and Disposal Association
Water districts	9511, 494		State Environmental or Health Department State Department of Education
School districts	8211		

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS¹
Car, Truck, and Boat Fleets & Equipment (continued)			
Beverage distributors	5149, 518	Carbonated Beverage Institute ¹ National Beer Wholesalers Association ¹ National Soft Drink Association Wine and Spirits Shippers Association ¹ Wine and Spirits Wholesalers Association	
Farmers and Ranchers	01, 02, 07	American Agricultural Association American Farm Bureau Federation Universal Cooperatives The National Grange	USDA Extension Service USDA Agricultural Stabilization and Conservation Service (has offices in county seats) Irrigation Districts National Association of State Departments of Agriculture
Chemical Manufacturing		Chemical Manufacturers Association ¹	
Industrial organic chemicals	286	Halogenated Cleaning Solvent Association ¹ Synthetic Organic Chemical Manufac- turers Association ¹ Halogenated Solvents Industry Alliance ¹	
Plastics and synthetic resins	2821	Polyurethane Manufacturers Association ¹ Society of the Plastics Industry	
Synthetic rubber	2822	International Institute of Synthetic Rubber Producers ¹	
Manmade fibers	2823, 2824	American Textile Manufacturers Institute ¹ Manmade Fiber Producers Association ¹	
Drugs	283	Drug, Chemical, and Allied Trades Association ¹ Pharmaceutical Manufacturers Association ¹	
Soaps and detergents and cleaning products	2841, 2842, 2843	Soap and Detergent Association ¹	
Toiletries	2844	Cosmetic, Toiletry, and Fragrance Association ¹	
Paints, varnishes, and and other coatings	285	National Paint and Coatings Association	

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS ²
Chemical Manufacturing (continued)			
Industrial inorganic chemicals	281		
Alkalis and chlorine	2812	Chlorine Institute ¹ National Lime Association ¹	
Industrial gases	2813	Compressed Gas Association ¹	
Pigments	2816	Dry Color Manufacturers Association ¹	
Agricultural chemicals	287	National Agricultural Chemicals Association ¹	See Agricultural Cooperatives
Fertilizers	2873, 2874, 2875	National Fertilizer Solutions Association	
Pesticides & herbicides	2879, 281, 286	United Pesticide Formulators and Distributors Association ¹ Pesticide Producers Association ¹	
Other chemicals	2891		
Adhesives & sealants		Adhesive and Sealant Council ¹	
Explosives	2892	Institute of Makers of Explosives ¹	
Printing ink	2893	National Association of Printing Ink Manufacturers	
Metal and Metal Products Manufacturing			
Metal Smelting, refining, and manufacturing	33	Steel Founders Society of America Non-Ferrous Foundries Society American Iron and Steel Institute ¹	
Automobile manufacture	371	Automotive Presidents Council ¹ Motor and Equipment Manufacturers Association ¹ Motor Vehicle Manufacturers Association of the U.S. ¹	
Manufacture of aircraft, ships, railroad, and other manufacture equipment	372, 373, 374, 375, 376, 379	Aerospace Industries Association of America ¹ American Railway Car Institute ¹ Shipbuilders Council of America ¹	
Electrical machinery and equipment	361, 362, 363, 364, 365, 366, 369	National Electrical Manufacturers Association ¹ Electronic Industries Association ¹	
Electrical components	367	Semiconductor Industry Association ¹ Electronic Industries Association ¹ American Electronics Association	

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS²
Metal & Metal Products Manufacturing (cont'd.)			
Scientific, medical and precision equipment	38	National Association of Photographic Manufacturers' Scientific Apparatus Makers Association' Dental Manufacturers of America' Health Industry Manufacturers Association'	
Engines and heavy equipment (non- electrical)	39	Diesel Engine Manufacturers Association' Engine Manufacturers Association' Industrial and Construction Equipment Division'	
Etching and electro- plating	347	National Association of Metal Finishers American Electroplaters Society'	
Other fabricated metal products (cans, cutlery, structural and sheet metal)	341, 342, 343, 344, 345, 346, 348, 349, 391	Metal Treating Institute National Tooling and Machinery Association Can Manufacturers Institute' Fabricating Manufacturers Association'	
Other Manufacturing			
Food products	20	American Feed Manufacturers Association National Food Processors Association National Frozen Food Association Tobacco Institute	
Tobacco manu- facturers	21		
Textile mills	22	Silk and Rayon Printers and Dyers Association American Textile Manufacturers Institute	
Apparel manu- facturers	23	Federation of Apparel Manufacturers'	
Lumber and wood products	24	Society of American Wood Preservers' American Wood Preservers Institute' American Forest Institute' Timber Products Manufacturers'	
Furniture and fixtures	25	American Furniture Manufacturers Association' Business and Institutional Furniture Manufacturers Association'	
Paper and pulp mills	261, 262 263, 266	Paper Industry Management Association American Paper Institute'	

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-1 (continued)

INDUSTRY	SIC CODES	TRADE ASSOCIATIONS	OTHER CONTACTS ²
Paper converters	264, 265	Paper Industry Management Association	
Printers & publishers	27	Paper Converters Association ¹ Printing Industries of America National Association of Printers	
Tires and other plastic and rubber products	30	Rubber Manufacturers Association ¹ Tire and Rim Association ¹	
Leather tanning and finishing	3111	Tanner's Council of America ¹	
Leather products	313, 314, 315, 316, 317, 319	Luggage and Leather Goods Manufacturers of America ¹	
Stone, clay, glass, concrete, and their products	32	Portland Cement Association ¹ National Ready Mixed Concrete Association ¹	
Institutions			
Colleges and Universities		Association of Physical Plant Administrators of Universities and Colleges	
Prisons		American Correctional Association	
Service Industries			
Golf courses	7992, 7997	Golf Course Association ¹ Golf Course Superintendents Association of America	
Auto race tracks	7948		
Amusement parks	7996	International Association of Amusement Parks and Attractions	
Funeral homes		Continental Association of Funeral and Memorial Societies National Funeral Directors and Morticians Association National Funeral Directors Association	State or county licensing
Pest control services		National Pest Control Association International Pesticide Applicators Association ¹	State licensing of pesticide applicators
Lawn & garden services		Professional Lawn Care Association of America ¹ Associated Landscape Contractors of America Professional Grounds Management Society	
Dry cleaners		International Fabricare Institute ¹	

¹ These associations do not have State or regional associations and are listed in Table E-2. Other associations are listed in Table E-3.

² Many of these associations are listed in Table E-4.

Table E-2 National Trade Associations

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
Adhesive and Sealant Council 1600 Wilson Boulevard Suite 910 Arlington, VA 22209 (703) 841-1112	140 firms manufacturing and selling all rubber and plastic based adhesives and related sealants in either solid or liquid form.	Newsletter, monthly; Seminar Papers, semiannually.
Aerospace Industries Association of America 1725 DeSales Street, NW Washington, D.C. 20036 (202) 429-4600	54 manufacturers of aircraft, guided missiles, spacecraft, propulsion, navigation, and guidance systems, etc.	Aerospace, quarterly; Aerospace Facts and Figures, annual; Annual Report; also various bulletins and technical and non-technical materials.
Air Freight Motor Carriers Conference 2201 Mill Road Alexandria, VA 22314	48 motor carriers transporting freight which has been previously moved by air.	—
Air Transport Association of America 1709 New York Avenue, NW Washington, D.C. 20006 (202) 626-4000	31 airlines engaged in transporting persons, goods, and mail by aircraft between fixed terminals on regular schedules.	Air Transport, annually; Airline Reports, irregular; also publishes fact sheets, press releases, studies, etc.
Airport Operators Council International 1700 K Street, NW Washington, D.C. 20006 (202) 296-3270	203 authorities, boards, commissions, and municipal departments which operate public airport facilities.	Airport Highlights, weekly.
Alliance of Metalworking Industries 1100 17th Street, NW, Suite 1000 Washington, D.C. 20036 (202) 223-2431	6 associations representing specialist metalworking manufacturers united in support of legislative and regulatory matters of mutual interest.	—
American Ambulance Association 1225 Eighth Street, Suite 590 Sacramento, CA 95814 (916) 448-5223	—	Newsletter, bimonthly; Paramedical News Review, quarterly; and Directory of Ambulance Service.
American Association of Nurserymen 1250 Eye Street, NW, Suite 500 Washington, D.C. 20005 (202) 789-2900	3,300 owners of trees, shrubs, vines, and other landscape plants; wholesalers and landscape nurseries.	UPDATE Newsletter, biweekly; A.L.I., quarterly; Membership Directory, annually.
American Automotive Leasing Association Heritage Park 8330 North Teutonia Avenue Milwaukee, WI 53209 (414) 355-8379	175 firms engaged in leasing automobiles.	Newsletter, monthly; Roster, semi-annually.
American Boat Builders and Repairers Association 715 Boylston Street Boston, MA 02116 (617) 266-6800	300 boatyards, marinas, and sailmakers.	Bulletin, bimonthly.

Table E-2 (continued)

ASSOCIATION

American Car Rental Association
1750 Pennsylvania Avenue, NW
Suite 1303
Washington, D.C. 20006
(202) 347-2370

American Forest Institute
1619 Massachusetts Avenue, NW
Washington, D.C. 20036
(202) 797-4500

American Furniture
Manufacturers Association
P.O. Box HP-7
High Point, NC 27261
(919) 884-5000

American Gas Association
1515 Wilson Boulevard
Arlington, VA 22209
(703) 841-8400

American Independent
Refiners Association
114 Third Street, SE
Washington, D.C. 20003
(202) 543-8811

American International Auto-
mobile Dealers Association
1126 16th Street, NW
Washington, D.C. 20036
(202) 659-2561

American Iron and Steel
Institute
1000 16th Street, NW
Washington, D.C. 20036
(202) 452-7100

American Package Express
Carriers Association
2201 Mill Road
Alexandria, VA 22314

American Paper Institute
260 Madison Avenue
New York, NY 10016
(212) 340-0600

American Petroleum Institute
1220 L Street, NW
Washington, D.C. 20005
(202) 682-8000

MEMBERSHIP

1,500 corporate car rental systems,
system licensees, and independent
car rental agencies.

70 wood products manufacturers
and converters, pulp and paper
manufacturers and converters,
land owners, and wood preservers.

336 furniture manufacturers.

4,758 individuals, distributors,
and transporters of natural, manu-
factured, and liquified gas.

41 independent petroleum refiners
and companies that supply services
to the independent refining industry

5,000 import automobile dealers.

Basic manufacturers and individuals
in the steel industry. Members op-
erate steel mills, blast furnaces,
finishing mills, and iron ore mines.

62 motor carriers transporting
parcels and package express and
performing messenger/courier
service on shipments.

166 U.S. manufacturers of pulp,
paper, and paperboard.

7,500 producers, refiners, market-
ers, and transporters of petroleum
and allied products like crude
oil, lubricating oil, gasoline, and
natural gas.

PUBLICATIONS

Currents (monthly newsletter);
Report, monthly; The Vehicle
(annual directory); and Alert, ir-
regular.

Green America (magazine)

Furniture Executive, irregular;
Membership Directory, annually.

Gas Energy Review, monthly; also
newsletters and public information
bulletins, etc.

Directory, annually; also plans to
publish a newsletter.

Confidential Newsletter, monthly;
Import Car (monthly magazine).

Annual Statistical Report; Directory
of Iron and Steel Works of the U.S.
and Canada; periodicals; etc.

Service Directory, annually

Report, weekly; etc.

Publishes several hundred manuals,
booklets, and other materials.

Table E-2 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
American Railway Car Institute 303 East Wacker Drive Suite 732 Three Illinois Center Chicago, IL 60601 (312) 861-0714	Independent manufacturers of rail- road and freight cars.	—
American Textile Manufacturers Institute 1101 Connecticut Avenue, NW Suite 300 Washington, D.C. 20036 (202) 862-0500	Textile mill firms operating machinery for manufacturing and processing cotton, manmade, wool, and silk textile products.	Textile Trends, weekly; Textile Hi- Lights, quarterly; Official Directory, annually; Legislative Issues, irregular; also bulletins.
American Truck Stop Operators Association P.O. Box 14126 North Palm Beach, FL 33408 (703) 549-2103	500 truck stop operators and suppliers.	—
American Waterways Operators 1600 Wilson Boulevard, Suite 1000 Arlington, VA 22209 (703) 841-9300	326 operators of towboats, tug- boats, barges, and shipyards which build and repair these vessels.	Weekly Letter; Annual Report; also publishes statistics and a book over- viewing the industry.
American Wood Preservers Institute 1651 Old Meadow Road McLean, VA 22102 (703) 893-4005	100 pressure treating plants for the preservative treatment of wood products; manufacturers and dis- tributors of chemical preservatives.	Newsletter, monthly; Annual Directory; Bulletins, irregular.
Amtralease 1415 Route 70 E, Suite 505A Cherry Hill, NJ 08034 (609) 428-8592	51 independent truck rental and leasing companies.	—
Associated Funeral Directors Service 810 Stratford Avenue Tampa, FL 33603 (813) 228-9105	2,512 funeral homes and mor- tuarys; franchise membership granted to one establishment in a community.	Bulletin and Roster, quarterly.
Association of American Railroads American Railroad Building 1920 L Street, NW Washington, D.C. 20036 (202) 835-9100	220 member coordinating and re- search agency of the American railway industry.	Rail News Update, biweekly; Annual Report.
Association of Petroleum Re-Refiners 2025 Pennsylvania Avenue, NW Suite 1111 Washington, D.C. 20006 (202) 833-2694	International association of 100 re-refiners, reclaimers, processors, and suppliers.	Newsletter, monthly.

Table E-2 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
Automotive Fleet and Leasing Association 2500 Artesia Boulevard Redondo Beach, CA 90278 (213) 376-8788	240 new car dealers, fleet administrators, leasing companies, drive-away companies, etc.	Newsletter, every 6-8 weeks.
Automotive Parts and Accessories Association 5100 Forbes Boulevard Lanham, MD 20706 (301) 459-9110	1,376 automotive parts and accessories retailers, distributors, manufacturers, and manufacturer representatives.	Report (monthly newsletter); Membership Directory, annually; Show Directory, annually; Annual Report; also regulatory bulletins, etc.
Automotive Parts Rebuilders Association 6849 Old Dominion Drive Suite 352 McLean, VA 22101 (703) 790-1050	1,007 rebuilders of automotive parts and suppliers of component parts.	News Bulletin, monthly.
Automotive Presidents Council Box 439 Teaneck, NJ 07666 (201) 836-9500	Presidents and chief executive officers of leading manufacturing companies producing automotive parts, equipment, supplies, etc.	—
Automotive Service Industry Association 444 North Michigan Avenue Chicago, IL 60611 (312) 836-1300	8,500 companies including parts wholesalers, distributors, manufacturers of parts, equipment, chemicals, refinishing materials, etc.	Voice of the Industry, monthly; Selling Today, bimonthly; Membership Directory, Buyers Guide, and Product Directory, semiannually.
Automotive Warehouse Distributors Association 9140 Ward Parkway Kansas City, MO 64114 (816) 444-3500	879 members including warehouse distributors, and auto parts manufacturers and suppliers.	Newsletter, monthly; Leadership Directory, annually.
Battery Council International 111 East Wacker Drive Chicago, IL 60601 (312) 644-6610	305 manufacturers, suppliers of materials, and national distributors of lead-acid storage batteries.	Newsletter, bimonthly; Proceedings, annually; also service and technical manuals, etc.
Business and Institutional Furniture Manufacturers Association 2335 Burton, SE Grand Rapids, MI 49506 (616) 243-1681	160 firms engaged in the manufacture of furniture intended for use in offices, public spaces, and non-live in institutional spaces.	Statistics, monthly; Newsletter, bimonthly; Membership Directory, semiannual; Bulletin, irregular.
Can Manufacturers Institute 1625 Massachusetts Avenue, NW Washington, D.C. 20036 (202) 232-4677	108 manufacturers, producers, sellers, or distributors of cans; and suppliers to the industry.	Legislative Review, weekly; Metal Can Shipments Reports, annual; also publishes executive newsletter, etc.
Carbonated Beverage Institute 230 Park Avenue, Suite 1600 New York, NY 10169 (212) 986-0280	25 independent bottlers of carbonated beverages.	

Table E-2 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
Chlorine Institute 70 West 40th Street New York, NY 10018 (212) 819-1677	135 manufacturers of chlorine and caustic soda; and associate members related to the industry.	Publishes numerous pamphlets and produces audiovisual aids.
Chemical Manufacturers Association 2501 M Street, NW Washington, D.C. 20037 (202) 887-1100	200 manufacturers of basic chemicals who sell a substantial portion of their production to others.	ChemEcology, monthly; Federal Legislation Bulletins, regularly during legislative sessions; also newsletter and booklets.
Chemical Specialties Manufacturers Association 1001 Connecticut Avenue, NW Washington, D.C. 20036 (202) 872-1110	390 manufacturers, marketers, formulators, and suppliers of chemical specialty products, such as insecticides, cleaning products, polishes, etc.	Executive Newswatch, weekly; Chemical Times and Trends, quarterly; State Legisletter, irregular; also compilations of laws and regulations.
Coin Laundry Association 1315 Butterfield Road Suite 212 Downers Grove, IL 60515 (312) 963-5547	3,000 owners and operators of self-service laundry and/or drycleaning stores.	Management Guidelines, monthly; News, monthly; Manufacturers & Distributors Directory, semi-annually.
Compressed Gas Association 1235 Jefferson Davis Highway Arlington, VA 22202 (703) 979-0900	300 firms processing and distributing compressed, liquefied, and cryogenic gases; also manufacturers of related equipment.	Compressions, monthly; Annual Report; also bulletins, pamphlets, etc.
Cosmetic, Toiletry and Fragrance Association 1110 Vermont Avenue, NW Washington, D.C. 20005 (202) 331-1770	450 manufacturers and distributors of cosmetics, fragrances, and toilet preparations; suppliers of raw materials and services.	Legislative Bulletin, weekly; Executive Newsletter, biweekly; Small Business Update, monthly; Cosmetic Journal, quarterly; etc.
Dairy Industry Committee 6245 Executive Boulevard Rockville, MD 20852 (301) 984-1444	Federation of associations in the dairy industry.	—
Dental Manufacturers of America 1118 Land Title Building Philadelphia, PA 19110 (215) 563-2588	160 manufacturing firms of dental equipment and supplies.	Membership Directory, biennial.
Diesel Engine Manufacturers Assoc. c/o Wherry & Associates 712 Lakewood Center North 14600 Detroit Avenue Cleveland, OH 44107 (216) 226-7700	6 manufacturers of diesel and gas engines of 1,000 horsepower and over.	Standards publications.
Drug, Chemical, and Allied Trades Association 42-40 Bell Boulevard Bayside, NY 11361 (212) 229-8891	500 manufacturers of drugs, chemicals and related products, and others related to the industry.	Digest of Current Activities and Trends, bimonthly.

Table E-2 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
Dry Color Manufacturers Association 206 North Washington Street Suite 202 Alexandria, VA 22314	53 manufacturers of inorganic and organic color pigments.	Newsletter, monthly; Annual Report; also publishes membership handbook and directory.
Edison Electric Institute 1111 19th Street, NW Washington, D.C. 20036 (202) 828-7400	190 investor-owned electric utility companies operating in the U.S.	Electrical Reports, weekly; also Electric Power Surveys, etc.
Electronic Industries Association 2001 Eye Street, NW Washington, D.C. 20006 (202) 457-4900	1,000 manufacturers of electronic parts, tubes, and solid state components; radio, television, and video systems; audio equipment.	Executive Report, bimonthly; Trade Directory, annually; etc.
Engine Manufacturers Association 111 East Wacker Drive Chicago, IL 60601 (312) 644-6610	21 producers of internal combustion engines, except automobile and aircraft engines.	Lubricating Oils for Industrial Engines, biennial.
Equipment and Tool Institute 1545 Waukegan Road Glenview, IL 60025 (312) 729-8550	69 manufacturers of automotive service equipment and tools.	ETI's Latest (member newsletter), quarterly; Membership Roster, annually.
Fabricating Manufacturers Association 7811 North Alpine Rockford, IL 61111 (815) 654-1902	350 manufacturers of equipment in the metal fabricating industry processing sheet, coil, tube, pipe, and structural shapes.	The Fabricator, monthly; New Literature Directory, annually.
Federation of Apparel Manufacturers 450 Seventh Avenue New York, NY 10123 (212) 594-0810	Associations representing over 5,500 manufacturers of women's and children's apparel.	—
Fiberglass Fabrication Association 1010 Wisconsin Avenue, NW Suite 630 Washington, D.C. 20007 (202) 544-0262	320 companies engaged in the hand layup or sprayup of fiberglass in open molds or engaged in filament winding or resin transfer molding.	News, monthly; etc.
Formaldehyde Institute 1075 Central Park Avenue Scarsdale, NY 10583 (914) 725-1492	63 formaldehyde producers and users of formaldehyde, including resin, adhesives, and wood products producers, etc., and related trade associations.	—
Gasoline and Automotive Service Dealers Association 6338 Avenue N Brooklyn, NY 11234 (212) 241-1111	550 owners/operators or dealers of service station or repair facilities.	Directory and Buyers Guide, annually; Bulletin-Newsletter, irregular; Tel-U-Gram, irregular.

Table E-2 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
Golf Course Association 111 East Wacker Drive, Suite 600 Chicago, IL 60601 (312) 644-6610	200 owners of public or private, tax-paying golf courses; and suppliers of products and services to member courses.	Golf Course Management Letter; Newsletter; and an industry manual.
Halogenated Cleaning Solvent Association 1075 Central Park Avenue Scarsdale, NY 10583 (914) 725-1492	Users, equipment manufacturers, distributors, and producers of halogenated cleaning solvents.	—
Halogenated Solvents Industry Alliance 1612 K Street, NW, Suite 300 Washington, D.C. 20006 (202) 659-0060	Producers, users, distributors, and equipment manufacturers involved with halogenated solvents.	—
Hazardous Waste Treatment Council 1919 Pennsylvania Avenue, NW Suite 300 Washington, D.C. 20006 (202) 296-0778	25 firms dedicated to the use of high technology treatment in the management of hazardous wastes.	—
Health Industry Manufacturers Association 1030 15th Street, NW Suite 1100 Washington, D.C. 20005 (202) 452-8240	319 manufacturers of medical devices and diagnostic products.	Dispatch, biweekly; Reporter, monthly; Annual Report; Directory, annually; also technical reports and regulatory compliance manuals.
Independent Battery Manufacturers Association 100 Larchwood Drive Largo, FL 33540 (813) 586-1408	308 domestic and foreign manufacturers of lead-acid storage batteries; associate members are related to the industry.	Battery Man, monthly; also technical manuals and buyers guide.
Independent Gasoline Marketers Council 1015 18th Street, NW Washington, D.C. 20036 (202) 857-0220	17 non-branded independent retailers of motor gasoline.	—
Independent Lubricant Manufacturers Association 1055 Thomas Jefferson St., NW Suite 302 Washington, D.C. 20007 (202) 337-3470	275 independent compounders and blenders of motor oils and lubricants.	Compoundings, monthly; also membership directory.

Table E-2 (Continued)

ASSOCIATION

Independent Petroleum
Association of America
1101 16th Street, NW
Washington, D.C. 20036
(202) 857-4722

Independent U.S. Tanker
Owners Association
c/o American Maritime
Association
1211 Connecticut Avenue, NW
Suite 414
Washington, D.C. 20036
(202) 833-8864

Industrial and Construction
Equipment Division
c/o Lynn K. Huffman
Farm and Industrial Equipment
Institute
410 North Michigan Avenue
Chicago, IL 60611
(312) 321-1470

Institute of Makers of Explosives
1575 Eye Street, NW
Suite 550
Washington, D.C. 20005
(202) 789-0310

Institutional and Municipal
Parking Congress
904 Princess Anne Street
Suite 303
Fredericksburg, VA 22401
(703) 371-7535

International Institute of
Synthetic Rubber Producers
2077 South Gessner Road
Suite 133
Houston, TX 77063
(713) 783-7511

International Fabricare
Institute
12251 Tech Road
Silver Spring, MD 20904
(301) 622-1900

International Marine Transit
Association
34 Otis Hill Road
Hingham, MA 02043
(617) 749-0078

MEMBERSHIP

7,400 independent oil and gas
operators, land and royalty
owners, and others.

10 independent companies opera-
ting U.S. flag tankers.

115 manufacturers of industrial
wheel tractors, log-skidders,
backhoes and loaders, digger-
derricks, hydraulic cranes, etc.

17 manufacturers of commercial
explosives and blasting supplies.

700 parking, transit and security
departments of cities, airports,
civic centers, port authorities,
colleges, universities, and
hospitals.

45 synthetic rubber manufacturers

10,000 retail drycleaners; in-
dustrial drycleaners, launderers,
hospital laundries, linen supply
services, etc.

350 marine transit operators and
suppliers, manufacturers, naval
architects, and others.

PUBLICATIONS

Petroleum Independent, bimonthly;
The Oil Producing Industry in
Your State, annually.

—

—

Publishes the Safety Library Series
on proper handling of explosives.

News, monthly; Yearbook
(directory).

Directory of Members, annually; and
Proceedings, annually.

Bulletins, monthly; Fabricare News,
monthly; FOCUS and Special
Reporter, quarterly.

Membership Directory, annually; and
Newsletter, irregular.

Table E-2 (Continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
International Passenger Ship Association 17 Battery Place New York, NY 10004 (212) 425-7400	Passenger steamship lines operating between the East Coast of North America and European and Mediterranean ports, as well as holiday cruises throughout the world.	—
International Pesticide Applicators Association 19445 Normandy Park Drive, SW Seattle, WA 98166 (206) 878-7192	100 companies engaged in the application of pest control measures working to insure proper pesticide usage.	Pesticide Progress (newsletter), quarterly.
International Society of Transport Aircraft Traders 1911 North Ft. Myer Drive Arlington, VA 22209 (703) 528-5610	Professionals engaged in all aspects of the sale, financing, and leasing of airline aircraft and related services.	JeTrader (newsletter), monthly; and Membership Directory, annually.
International Taxicab Association 11300 Rockville Pike Rockville, MD 20852 (301) 881-1333	550 fleet taxicab owners operating 30,000 vehicles.	Taxicab Management, semiannually.
Luggage and Leather Goods Manufacturers of America 350 Fifth Avenue New York, NY 10118 (212) 695-2340	240 manufacturers and wholesalers of domestic luggage, trucks, personal accessories, and similar leather goods.	Showcase, bimonthly.
Man-made Fiber Producers Association 1150 17th Street, NW Washington, D.C. 20036 (202) 296-6508	Manufacturers of man-made fibers used in apparel, household goods, industrial materials, and other types of products.	Man-made Fibers Fact Book, biennial; Man-made Fibers Guide, biennial; also publishes flow charts and energy booklet.
Marine Towing and Transportation Employers Association 17 Battery Place New York, NY 10004 (212) 344-9097	Owners and operators of tugs, lighters, oil barges, and tankers in ports of New York, New Jersey, Atlantic Coast, Long Island Sound, and Great Lakes.	—
Mobile Industrial Caterers' Association 2352 West 3rd Street Los Angeles, Ca 90057 (213) 383-1228	114 firms and corporations engaged in the mobile catering business; and suppliers and manufacturers.	Activities Bulletin, monthly; Mica La Carte, quarterly; Handbook and Roster, annually; also bulletins, etc.
Motor and Equipment Manufacturers Association 222 Cedar Lane Teaneck, NJ 07666 (201) 836-9500	750 manufacturers of automotive replacement parts, maintenance equipment, chemicals, accessories, etc.	Marketing Insight, quarterly; Membership Roster and Buyers Guide, annually; bulletins and reports; etc.

Table E-2 (Continued)

ASSOCIATION

Motor Vehicle Manufacturers
Association of the United States
300 New Center Building
Detroit, MI 48202
(313) 872-4311

National Agricultural Chemicals
Association
1155 15th Street, NW
Washington, D.C. 20005
(202) 296-1585

National Air Transport
Association (NATA)
4226 King Street
Alexandria, VA 22302
(703) 845-9000

National Association of
Convenience Stores
5201 Leesburg Pike
Suite 809
Falls Church, VA 22041
(703) 578-1800

National Association of
Photographic Manufacturers
600 Mamaroneck Avenue
Harrison, NY 10528
(914) 698-7603

National Association of
Printers and Lithographers
780 Palisade Avenue
Teaneck, NJ 07666
(201) 342-0700

National Association of
Printing Ink Manufacturers
550 Mamaroneck Avenue
Harrison, NY 10528
(914) 698-1004

National Association of
Recycling Industries
330 Madison Avenue
New York, NY 10017
(212) 867-7330

National Association of
Solvent Recyclers
115 East Hudson Avenue
Dayton, OH 45405
(513) 278-3108

MEMBERSHIP

9 manufacturers of passenger and commercial cars, trucks, and buses.

97 firms engaged in producing or formulating agricultural chemical products, or producing ingredients for such products.

1,000 aviation services such as fixed base operators and on-demand airtaxis.

950 retail food stores that sell gasoline, fast foods, etc., and that usually are open seven days per week.

35 manufacturers of photographic equipment, supplies, films, and chemicals.

2,800 firms engaged in printing.

99 manufacturers of all types of printing inks.

1,200 dealers, processors, and industrial consumers of recycled materials, scrap metals, waste paper, textiles, and rubber.

100 firms engaged in recycling and reclamation of used industrial solvents.

PUBLICATIONS

Motor Vehicle Facts and Figures, annually; Motor Vehicle Identification Manual, annually; World Motor Vehicle Data Book, annually.

Action News, bimonthly; also bulletins and manuals.

Air Tran News, monthly; and Annual Membership Directory.

Update, monthly; Membership and Services Directory, annually; etc.

—

Special Reports, 28/year; The Printing Manager, monthly; etc.

Publishes bulletins, booklets, trade names registry, etc.

Publishes newsletters, booklets, and studies.

Report (newsletter), monthly; Green Book of Solvent Recycling, annually; Legislative Bulletins, irregular.

Table E-2 (Continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
National Association of Truck Stop Operators P.O. Box 1285 Alexandria, VA 22313 (703) 549-2100	1,100 owners and operators of truck stops; allied members in- clude oil companies and other suppliers.	Trucker News, monthly; Washington Memo, monthly.
National Automotive Radiator Service Association c/o Douglas Verney P.O. Box 267 Harleysville, PA 19438 (215) 256-4246	1,200 operators of automotive radiator repair shops and cool- ing system service businesses.	Automotive Cooling Journal, monthly; Newsletter, bimonthly; Membership Directory, annually; Tech Supplement, irregular.
National Beer Wholesaler's Association 5205 Leesburg Pike Suite 505 Falls Church, VA 22041 (703) 578-4300	2,050 independent wholesalers of malt beverages and affiliates of the malt beverage industry.	Beer Marketing Management, monthly; Washington Update (members only), monthly.
National Bus Traffic Association 506 South Wabash Avenue Chicago, IL 60605 (312) 922-3700	333 intercity bus carriers.	—
National Business Aircraft Association One Farragut Square, South 11th Floor Washington, D.C. 20006 (202) 783-9000	2,650 companies owning and operating aircraft for business use, suppliers, maintenance, and air fleet service companies.	Maintenance Bulletin, monthly; Business Aircraft Report, bimonthly; Business Flying, 3-4/year; Annual Directory; also special bulletins, etc.
National Cargo Bureau One World Trade Center Suite 2757 New York, NY 10048 (212) 432-1280	Representatives of the maritime industry and associated groups and governmental departments.	—
National Electrical Manufacturers Association 2101 L Street, NW Washington, D.C. 20037 (202) 457-8400	550 companies which manufacture equipment used for the generation, transmission, distribution control, and utilization of electric power.	News Bulletin, monthly; also manuals, guidebooks, etc.
National Federation of Fishermen 2424 Pennsylvania Avenue, NW Suite 516 Washington, D.C. 20037 (202) 554-3272	Commercial fishermen who fish in areas from the Gulf of Maine to the Gulf of Mexico, from Mexico to Alaska, and the mid-Pacific.	—
National Lime Association 3601 North Fairfax Drive Arlington, VA 22201 (703) 243-5463	44 manufacturers of lime products used in steel manufacture, soil stabilization, building construction, air pollution control, and water treatment.	Publishes various books and manuals on lime handling and use.

Table E-2 (Continued)

ASSOCIATION

MEMBERSHIP

PUBLICATIONS

National Lubricating
Grease Institute
4635 Wyandotte Street
Kansas City, MO 64112
(816) 931-9480

190 companies manufacturing or
selling all types of lubricating
greases.

Spokesman, monthly; also technical
literature.

National Marina Association
P.O. Box 2156
Arlington, VA 22202

Individuals, associations, and
corporations engaged as marina
owners and operators or in related
fields.

—

National Maritime Council
1748 N Street, NW
Washington, D.C. 20036
(202) 785-3754

Over 200 shippers responsible
for the international trans-
portation of companies active in
foreign commerce.

Publishes brochures.

National Oil Recyclers
Association
5305 Lee Highway
Arlington, VA 22207
(703) 237-5700

—

—

National Parking Association
2000 K Street, NW, Suite 350
Washington, D.C. 20006
(202) 296-4336

1,000 owners and operators of
off-street parking facilities;
and others with an interest in
downtown parking.

Parking Angle (newsletter, monthly);
Government Affairs Report, 10/year;
Parking Magazine, quarterly; etc.

National Petroleum Refiners
Association
1899 L Street, NW, Suite 1000
Washington, D.C. 20036
(202) 457-0480

325 petroleum, petrochemical,
and refining companies.

—

National Selected Morticians
1616 Central Street
Evanston, IL 60201
(312) 475-3414

965 funeral directors.

NS Mailgram, bimonthly; The
Bulletin, quarterly; Membership
Roster, annually; Personal Roster,
biennially.

National Small Business
Association
1604 K Street, NW
Washington, D.C. 20006
(202) 293-8830

50,000 small businesses including
manufacturing, wholesale, retail,
service, etc., representing over
500 different kinds of business.

Voice of Small Business, monthly.

National Tank Truck Carriers
2201 Mill Road
Alexandria, VA 22314

225 common or contract "for-hire"
tank truck carriers transporting
liquid and dry bulk commodities,
chemicals, etc.

National Tank Truck Directory,
annually; Bulletins, irregular.

National Truck Leasing System
One North Wacker Drive
Chicago, IL 60606
(312) 782-2991

143 independent companies
providing a service leasing
trucks and providing all
services except drivers.

NationLease Newsletter, weekly;
also manuals, booklets, and forms.

Table E-2 (Continued)**ASSOCIATION**

North American Telecommunications Association
2000 M Street, NW, Suite 550
Washington, D.C. 20036
(202) 296-9800

Paper Converters Association
1133 15th Street, NW
Washington, D.C. 20005
(202) 429-9440

Pesticide Producers Association
1200 17th Street, NW, 6th Floor
Washington, D.C. 20036
(202) 857-9800

Petroleum Equipment Institute
P.O. Box 2380
Tulsa, OK 74101
(918) 743-9941

Petroleum Marketing Education Foundation
P.O. Box 11187
Columbia, SC 29211
(803) 252-5646

Pharmaceutical Manufacturers Association
1100 15th Street, NW
Washington, D.C. 20005
(202) 835-3400

Plastic and Metal Products Manufacturers Association
225 West 34th Street
New York, NY 10001
(212) 564-2500

Polyurethane Manufacturers Association
800 Roosevelt Road, Bldg. C
Suite 20
Glen Ellyn, IL 60137
(312) 858-2670

Private Truck Council of America
2022 P Street, NW
Washington, D.C. 20036
(202) 785-4900

Production Engine Remanufacturers Association
1800 North Argyle Avenue
Suite 510
Hollywood, CA 90028
(213) 469-8966

MEMBERSHIP

565 firms directly involved with the manufacture, sale, supply, maintenance, or lease of telephone equipment or parts.

Manufacturers of social writing paper, school writing paper, and notebooks.

50 small pesticide producers, importers, and registrants (companies that own labels but do not produce pesticides).

950 distributors and manufacturers of equipment used in service stations, bulk plants, and other petroleum marketing operations.

650 petroleum marketers, refiners, wholesalers, and retailers.

130 manufacturers of ethical pharmaceutical and biological products, and medical devices and diagnostic products.

150 manufacturers of housewares, toys, handbag accessories and parts, costume jewelry, and optical frames.

135 manufacturing companies whose products are primarily of polyurethane raw materials; suppliers to these manufacturers.

1,500 firms operating trucks in furtherance of a primary business other than for-hire transportation.

215 production line combustion engine remanufacturers and representatives supplying material and parts to remanufacturers.

PUBLICATIONS

Washington Update, biweekly; Interconnect Industry Statistical Review, annually; Telecommunications Sourcebook, annually; also publishes newsletters.

—

—

Newsletter, 3/month; Petroleum Equipment Directory, annually.

Honor Roll of Contributors, annually.

Newsletter, weekly; State Capitol Reports, weekly; Administrative Officers (directory), annually.

—

Poly Topics (newsletter), quarterly; Membership Directory, annually.

Highway Safety Bulletins, monthly; Monthly Report.

Directory, annually; also catalogs and manuals.

Table E-2 (Continued)

ASSOCIATION

Professional Lawn Care
Association of America
1225 Johnson Ferry Road
Suite B-220
Marietta, GA 30067
(404) 977-5222

Rubber Manufacturers
Association
1400 K Street, NW
Washington, D.C. 20005
(202) 682-4800

Scientific Apparatus Makers
Association
1101 16th Street, NW
Washington, D.C. 20036
(202) 223-1360

Semiconductor Industry
Association
4320 Stevens Creek Boulevard
Suite 275
San Jose, CA 95129
(408) 246-1181

Shipbuilders Council of America
1110 Vermont Avenue, NW
Washington, D.C. 20005
(202) 775-9060

Silk and Rayon Printers and
Dyers Association
150 Hinchman Avenue
Wayne, NJ 07470
(201) 942-7000

Small Motor Manufacturers
Association
P.O. Box 637
Libertyville, IL 60048
(312) 362-3201

Soap and Detergent Association
475 Park Avenue, South
New York, NY 10016
(212) 725-1262

Society of American Wood
Preservers
1401 Wilson Boulevard
Suite 205
Arlington, VA 22209
(703) 841-1500

MEMBERSHIP

450 corporations, firms, and
individuals active in the
chemical lawn care business
or related fields.

206 manufacturers of tires, tubes,
mechanical, and industrial products,
and other rubber products.

200 manufacturers and distributors
of industrial, optical, recorder-
controller, and medical instruments,
scientific apparatus, and
laboratory equipment.

55 companies that produce semi-
conductor products such as discrete
components, integrated circuits,
and microprocessors.

50 companies engaged in the con-
struction and repair of vessels
and other marine crafts, and
manufacturers of marine equipment
and supplies.

106 dyers, printers, and finishers
of silk and man-made yarns and
fabrics.

60 manufacturers, users, suppliers,
and other interested parties in-
volved in the manufacture of frac-
tional horsepower motors.

145 manufacturers of soap, deter-
gents, fatty acids, glycerine;
and raw materials suppliers.

100 wood treating plants and
chemical suppliers.

PUBLICATIONS

Turf Talks (newsletter), quarterly;
Membership Directory, annually;
also publishes technical resource
manual.

President's Letter, monthly;
Government Relations Status
Report, quarterly.

SAMA Edit, bimonthly; Membership
Directory, annually; also publishes
special reports.

Circuit (newsletter), quarterly;
Yearbook and Directory, biennially;
also essays, research reports, and
proceedings.

Shipyard Weekly; Statistical
Quarterly; and Annual Report.

Timely Topics, 3/week.

Newsletter, quarterly; Membership/
Product Directory, annually.

Cleanliness Facts, 6/year; Detergents,
biennial proceedings; also publishes
newsletter for member company
executives.

Action Update Newsletter, monthly;
Environmental Issues, quarterly;
Government Affairs Bulletin,
quarterly; etc.

Table E-2 (Continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
Society of Independent Gasoline Marketers of America 8300 Greensboro Drive Suite 640 McLean, VA 22101	250 private brand gasoline marketers, wholesale, and retail.	Roster, annually; Update (newsletter), annually; also position papers, news releases, and information on industry issues.
Specialized Carriers and Rigging Association 733 15th Street, NW, Suite 1120 Washington, D.C. 20005 (202) 797-5407	550 common carriers, crane and rigging companies, and millwright contractors engaged in transportation of heavy and specialized articles.	Newsletter, weekly; Bulletin, monthly; Transportation Engineer Magazine, monthly; Official Directory of Members, annually.
Steel Tank Institute 666 Dundee Road, Suite 705 Northbrook, IL 60062 (312) 498-1980	65 manufacturers of pressure and nonpressure storage tanks and truck tanks.	Bulletin, monthly; Membership Directory, annually.
Synthetic Organic Chemical Manufacturers Association 1075 Central Park Avenue Scarsdale, NY 10583 (914) 725-1492	105 manufacturers of synthetic organic chemicals that are manufactured from crude petroleum, vegetable oils, etc., and their derivatives.	Newsletter, bimonthly; Annual Report to Membership.
Tanners' Council of America 2501 M Street, NW, Suite 350 Washington, D.C. 20037 (202) 785-9400	350 firms engaged in leather tanning.	Council News, weekly; Leather Industry Statistics, annually; Directory of U.S. Leather Tanners, biennially.
Timber Products Manufacturers 951 East Third Avenue Spokane, WA 99202 (509) 535-4646	315 timber products manufacturers, such as sawmills, plywood plants, lumber and wood remanufacturers, pulp and paper plants, etc.	Bulletin, weekly; also publishes periodic information pieces.
Tire and Rim Association 3200 West Market Street Akron, OH 44313 (216) 836-5553	123 manufacturers of tires, rims, wheels, and related parts.	Publishes design and standards information.
Truck Trailer Manufacturers Association 1020 Princess Street Alexandria, VA 22314 (703) 549-3010	225 manufacturers of commercial trailers (95); manufacturers of supplies for truck trailer industry (130).	Weekly Bulletin; Directory, annually.
Tune-Up Manufacturers Institute 222 Cedar Lane Teaneck, NJ 07666 (201) 836-9500	18 manufacturers of automotive ignition products.	—
United Pesticide Formulators and Distributors Association P.O. Box 87188 College Park, GA 30337 (404) 762-0194	92 firms engaged in formulating and distributing exterminating products or equipment as a significant part of their business.	—

Table E-2 (Continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS
United States Telephone Association 1801 K Street, NW, Suite 1201 Washington, D.C. 20006 (202) 872-1200	1,650 independent operating telephone companies; holding companies; manufacturers and suppliers.	Member Letter, Biweekly; Holding Company Report, annually; Phonefacts, annually; etc.
United States Tuna Foundation 2040 Harbor Island Drive Suite 208 San Diego, CA 92101 (610) 298-4697	Tunaboat owners, fishermen, processors, fishermen's unions, and cannery workers' unions.	—
Water Transport Association RD 1, Box 3280 Arlington, VT 05250 (802) 375-6518	Carriers by water, certified by the Interstate Commerce Commission, serving the Great Lakes, inland waterways, coastal, and intercoastal trades.	—
Western Oil and Gas Association 727 West Seventh Street Los Angeles, CA 90017 (213) 627-4866	100 petroleum production, refining, and wholesale marketing companies in the western part of the United States.	News and Views, bimonthly; Energygram, quarterly; Directory of WOGA, annually.
Western Railroad Traffic Association 222 South Riverside Plaza Suite 1200 Chicago, IL 60606 (312) 648-7800	41 railroads operating in western territory.	—
Wine and Spirits Shippers Association 11800 Sunrise Valley Drive Reston, VA 22091 (703) 860-2300	246 importers and distributors of alcoholic beverages.	—

Table E-3 Associations with State or Regional Affiliations

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
American Agricultural Marketing Association 225 Touhy Park Ridge, IL 60068 (312) 399-5700	American Farm Bureau Federation and 28 state farm bureau marketing associations (agricultural cooperatives).	Something to Crow About; Spotlight; etc.	See membership information.
American Bus Association 1025 Connecticut Avenue, NW Washington, D.C. 20036 (202) 293-5890	3,100 primarily privately owned bus operating firms engaged in intercity, local, charter, and tour service.	Motor Carrier Regulation Service, weekly; Newsletter, weekly; Destinations (magazine), monthly; Report, annual.	22 state groups.
American Electronics Association 2670 Hanover Street Palo Alto, CA 94303 (415) 857-9300	2,900 manufacturers of electronics components and equipment; firms engaged in electronics research and development, and information technology.	Update, monthly; Directory, annual Government Affairs Bulletin, etc.	13 local groups.
American Electroplaters Society 1201 Louisiana Avenue Winter Park, FL 32789 (305) 647-1197	Scientists, technicians, and others interested in research in electroplating, surface finishing, and allied arts.	Plating and Surface Finishing, monthly.	85 local groups.
American Feed Manufacturers Association 1701 N. Fort Meyer Drive Arlington, VA 22209 (703) 524-0810	600 manufacturers of feeds for livestock and poultry.	Feedgram, biweekly; Feed Control Comment, monthly; Membership Directory, annual.	38 state groups.
American Movers Conference P.O. Box 2303 Arlington, VA 22202 (703) 521-1111	1,000 local, intrastate, interstate, and international movers, who transport goods, equipment, and high-value products	Movers Journal, monthly; Membership Directory, annual.	17 state groups and 4 local groups.
American Rental Association 1900 19th Street Moline, IL 61265 (309) 764-2475	2,590 firms engaged in the rental of medical equipment, banquet, and party equipment, tools, machinery, and other products.	Newsletter, monthly; Rental Age, monthly.	65 local groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
American Road and Transportation Builders Association 525 School Street, SW Washington, D.C. 20024 (202) 488-2722	4,500 highway and airport contractors; individuals engaged in other aspects relating to the construction and operation of transportation facilities.	—	4 regional groups and 28 state groups.
American Short Line Railroad Association 2000 Massachusetts Avenue, NW Washington, D.C. 20036 (202) 785-2250	400 independently owned short line (usually less than 100 miles) railroads.	Views and News, weekly.	5 local groups.
American Trucking Associations 2201 Mill Road Alexandria, VA 22314	Federation of 50 state trucking associations, the District of Columbia Association and 13 national conferences of trucking companies.	Transport Topics, weekly; Trends, annual.	See membership information.
Associated Builders and Contractors 729 15th Street, NW Washington, D.C. 20005 (202) 637-8800	16,000 construction contractors, sub-contractors, suppliers, and associates.	The Builder and Contractor, monthly; Scoop, bimonthly; Classified Membership Directory, annual; also publishes safety manuals.	70 local groups.
Associated Landscape Contractors of America 1750 Old Meadow Road McLean, VA 22102 (703) 821-8611	1,000 landscape contractors.	Action letter, monthly; Membership Directory, annual; also publishes technical and management reports.	13 state groups.
Associated General Contractors of America 1957 E Street, NW Washington, D.C. 20006 (202) 393-2040	8,500 general contractors engaged in heavy construction (factories, office buildings, highways, bridges, dams, and other structures).	National Newsletter, weekly; Constructor, monthly; Constructor Annual Roster; National Associate Member, annual; also manuals, guides, etc.	112 local groups.
Association of Physical Plant Administrators of Universities & Colleges 11 Dupont Circle, Suite 250 Washington, D.C. 20036 (202) 234-1662	2,300 members devoted to the development of professional standards in the administration, care, operation, planning, and development of physical plants.	Newsletter, monthly; Technical Papers, quarterly; also publishes studies and books.	6 regional groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
Automotive Dismantlers and Recyclers Association 1133 15th Street, NW Washington, D.C. 20005 (202) 429-9440	5,500 firms selling used auto and truck parts, motorcycles, buses, and farm and construction equipment; operators of telephone circuits; and firms selling equipment and services to the industry.	Newsletter, monthly; Dismantlers Digest, bimonthly; Roster of Members, annual; etc.	45 state and local chapters.
Automotive Legislative Council of America 1725 K Street, NW, Suite 705 Washington, D.C. 20006 (202) 331-9825	Represents 7,300 independent auto body and mechanical garages that do not belong to a franchise.	Washington Reports, monthly.	20 state groups.
Automotive Service Councils 1888 Industrial Drive, Suite 112 Elmhurst, IL 60126 (312) 530-2330	6,000 independent automotive repair shops, including body, paint, and trim shops, engine rebuilders, transmission shops, etc.	Automotive Service Reports, monthly.	41 state groups and 275 local groups.
Automotive Trade Association Managers Executive Offices 8400 Westpark Drive McLean, VA 22101 (703) 821-7072	104 executives of state and local automotive dealer associations.	—	See membership information.
Continental Association of Funeral & Memorial Societies 2201 S Street, NW, Suite 530 Washington, D.C. 20009 (202) 745-0634	900,000 members	Bulletin, quarterly; Member Societies of the Continental Association, annual; also Funeral Practices: Survey of State Laws and Regulations; etc..	180 local groups.
Eastern Railroad Association 1250 Broadway, Suite 1100 New York, NY 10001 (212) 340-8800	23 railroads located in the Eastern Territory.	—	57 regional groups.
Farmland Industries P.O. Box 7305 3315 North Oak Trafficway Kansas City, MO 64116 (816) 459-6000	Manufactures and sells petroleum products, feed, and other supplies to farmers.	Farmland News, semimonthly.	2,299 local cooperative organizations.

Table E-3 (continued)

ASSOCIATION

The Fertilizer Institute
1015 18th Street, NW
Washington, D.C. 20036
(202) 861-4900

Gas Processors Association
1812 First National Bank Bldg.
Tulsa, OK 74103
(918) 582-5112

Golf Course Superintendents
Association of America
1617 St. Andrews Drive
Lawrence, KS 66044
(913) 841-2240

Hazardous Waste Services
Association
1333 New Hampshire Avenue, NW
Suite 1100
Washington, D.C. 20036
(202) 833-1294

Independent Automotive Service
Association
1901 Airport Freeway
Bedford, TX 76021
(817) 283-6205

Independent Liquid Terminals
Association
1133 15th Street, NW, Suite 204
Washington, D.C. 20005
(202) 659-2301

Institute of Industrial Launderers
1730 M Street, NW, Suite 613
Washington, D.C. 20036
(202) 296-6744

MEMBERSHIP

300 producers, manufacturers,
importers, brokers, and dealers of
fertilizer and manufacturers of
fertilizer equipment.

240 firms producing, processing,
and handling natural gas liquids,
and other hydrocarbon products at
gas-processing plants.

5,500 golf course superintendents,
and research and commercial in-
terests concerned with golf course
maintenance and improvement.

92 companies and individuals with
an interest in the hazardous waste
services industry.

4,700 independent automotive repair
and body shops, including collision
repair, heavy duty vehicle,
transmission, and tow truck
services.

56 independent terminal companies
which provide "for hire" services to
handle, transfer, and store bulk
liquid commodities.

800 industrial laundry and cleaning
plants specializing in rental of work
uniforms, wiping towels, and other
items.

PUBLICATIONS

Fertilizer Flash Report, monthly;
Fertilizer Index, monthly; Member
Letter, monthly; Fertilizer Progress,
bimonthly; etc.

GPA in Brief, quarterly; Pro-
ceedings, annual; Digest, irregular.

Golf Course Management, monthly;
Newsletter, monthly; Annual
Membership Directory; etc.

Wasteline, biweekly; also publishes
brochure.

Automotive Independent, monthly;
Bulletin, quarterly; Newsletter,
quarterly; etc.

Newsletter, monthly; Bulk Liquid
Terminal and Storage Facility
(directory), annual.

Industrial Launderer, monthly.

LOCAL AFFILIATIONS

48 affiliated groups.

6 local groups.

95 affiliated chapters.

7 local groups.

117 local groups.

One regional group.

5 state groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
International Association of Amusement Parks and Attractions P.O. Box 776 115 E. Commercial Wood Dale, IL 60191 (312) 766-0881	1,300 operators of amusement parks, tourist attractions, swimming pools, and beaches; manufacturers of outdoor amusement equipment.	Actionews, annual.	Three state groups.
International Carwash Association/ National Carwash Council 4415 West Harrison Street Suite 200 Hillside, IL 60162 (312) 449-7430	2,000 carwash owners, operators, and managers; manufacturers, dis- tributors, and dealers of equipment of equipment and supplies.	Management Report, monthly; Directory, semiannually.	30 local groups.
International Drycleaners Congress P.O. Box 8629 San Jose, CA 95155 (408) 286-2969	880 drycleaners, launderers, and allied tradesmen.	News, bimonthly; Directory, annual.	One regional group.
Interstate Towing Association P.O. Box 801 615 East Eighth Street Traverse City, MI 49685 (616) 941-5314	122 motor carriers certified to transport wrecked, disabled, repossessed, and replacement motor vehicles.	Membership List, irregular.	Four regional groups.
Liaison Committee of Cooperating Oil and Gas Associations 500 Broadway Plaza Wichita, KS 67202 (316) 263-7297	10,000 oil and gas producers and royalty owners.	Liaison Newsletter, 3-4/year.	24 associations.
Metal Treating Institute 1311 Executive Center Drive Suite 200 Tallahassee, FL 32301 (904) 878-6185	278 firms engaged in commercial heat treating of metals, tools, and other metal products.	Monthly Sales Statistical Report; Newsletter, monthly; Membership Directory, annually.	6 regional groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
Mid-Continent Oil and Gas Association 711 Adams Office Building Tulsa, OK 74103 (918) 582-5166	7,500 oil and gas producers, refiners, gasoline manufacturers, and other individuals interested in oil business.	—	4 state groups.
National Association of Chemical Distributors Hulman Building, 20th Floor 120 West Second Street Dayton, OH 45402 (513) 228-3020	285 firms which purchase chemical raw materials for distribution to industry.	Chemical Distributor (newsletter), monthly; Government Relations Bulletin, bimonthly; Membership Roster, annually.	5 regional groups.
National Association of Fleet Administrators 295 Madison Avenue New York, NY 10017 (212) 689-3200	2,450 members responsible for the administration of a motor vehicle fleet of 25 or more units, not involving the sale, rental, or lease of vehicles.	Bulletin, monthly; Newsletter, monthly; Annual Reference Book; Membership Roster, annually.	27 regional groups.
National Association of Home Builders of the U.S. 15th and M Streets, NW Washington, D.C. 20005 (202) 822-0200	118,000 single and multi-family home builders, commercial builders, and others associated with the building industry.	Builder Magazine, monthly; Economic News Notes, monthly; NAHB News, bi-monthly; Homes and Homebuilding, annually; also booklets and manuals.	800 local groups.
National Association of Institutional Laundry Managers 7105 Peach Court Brentwood, TN 37027 (615) 373-4924	1,350 managers of laundries serving institutions such as hospitals, nursing homes, hotels, schools, and correctional facilities.	Newsletter, monthly; Roster, biennial; also publishes certification manual for laundry managers	43 regional groups.
National Association of Manufacturers 1776 F Street, NW Washington, D.C. 20006 (202) 626-3700	13,000 manufacturers; cooperating members are non-manufacturers having a direct interest in or relationship to manufacturing.	Enterprise, monthly; also Directory of Officers, Directors of Committees, reports, bulletins, and legal studies.	150 local and state trade affiliates.
National Association of Metal Finishers 111 East Wacker Drive Chicago, IL 60601 (312) 644-6610	1,200 management executives of firms engaged in plating, hard chroming, galvanizing, and other forms of metal finishing.	Finisher's Management, monthly; Finishing Line, monthly.	24 local groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
National Association of Plumbing-Heating-Cooling Contractors 180 South Washington Street Falls Church, VA 22042	Federation of 350 local associations of plumbing, heating, and cooling contractors. Includes approximately 6,300 members.	News (tabloid), monthly.	48 state groups and 350 local groups.
National Association of Wholesaler-Distributors 1725 K Street, NW Washington, D.C. 20006 (202) 872-0885	45,000 wholesaler-distributors.	Newsletter, monthly; also legal and legislative bulletins.	National, state, and local associations.
National Automobile Dealers Association 8400 Westpark Drive McLean, VA 22102 (703) 821-7000	18,000 franchised new car and truck dealers.	American Truck Dealer Division Newsletter, monthly; Automotive Executive Magazine, monthly; Directory, annually; etc.	57 state groups and 55 local groups.
National Construction Industry Council 2100 M Street, NW, Suite 600 Washington, D.C. 20037 (202) 296-7019	29 professional societies and trade associations united to improve the capability and productivity of the construction industry.	The Voice, quarterly.	See membership information.
National Council of Farmer Cooperatives 1800 Massachusetts Avenue, NW Washington, D.C. 20036 (202) 659-1529	Farmers' marketing, purchasing, and credit cooperatives serving total farm membership of nearly 2 million.	Washington Councilor, weekly; Coop Monitor, quarterly; Cooperative Directory, triennial.	180 national, regional, and state associations.
National Dairy Council 6300 North River Road Rosemont, IL 60018 (312) 696-1020	600 milk producers, milk dealers, and manufacturers of butter, cheese, ice cream, dairy equipment, and supplies.	Dairy Council Digest, semimonthly; Nutrition News, quarterly.	33 local groups.
National Electrical Contractors Association 3715 Wisconsin Avenue Bethesda, MD 20814 (301) 657-3110	6,200 electrical contractors erecting, installing, repairing, servicing, and maintaining electric wiring, equipment, and appliances.	Newsletter, weekly; Electrical Contractor Magazine, monthly; Electro Fact File, monthly.	135 local groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
National Federation of Independent Business 150 West 20th Avenue San Mateo, CA 94403 (415) 341-7441	560,000 independent business and professional people.	The Mandate, 8/year; also prepares and disseminates weekly press releases to daily papers, etc.	Field staff of 571.
National Fertilizer Solutions Association 8823 North Industrial Road Peoria, IL 61615 (309) 691-2870	1,700 manufacturers, wholesalers, and dealers of nitrogen solutions and mixed fluid fertilizers; also equipment manufacturers, etc.	Advocate, monthly; Membership Roster, annually; and publishes solution magazine, and fertilizer issues.	State association affiliates are included in membership.
National Food Processors Association 1401 New York Avenue, NW Washington, D.C. 20005 (202) 639-5900	615 commercial packers of food products, such as fruit, vegetables, meats, and seafood, processed by heat in hermetically sealed containers.	Information Letter, weekly; Fisheries Bulletin, monthly; State Legislative Reporting Service, monthly; Washington Wire, monthly; Environmental Affairs Newsletter, irregular; etc.	Two branches.
National Frozen Food Association P.O. Box 398 Hershey, PA 17033 (717) 534-1601	1,250 distributors, packer/processors, retail supermarket chains, food service operators, brokers, suppliers, and warehouseers of frozen foods.	Frozen Food Executive Bulletin, monthly; Frozen Food Forum, monthly; etc.	15 regional groups and 9 local groups.
National Funeral Directors and Morticians Association 5723 South Indiana Avenue Chicago, IL 60637 (312) 752-7419	2,000 state, district, and local funeral directing and embalming associations and their members.		26 state groups.
National Funeral Directors Association 135 West Wells Street Milwaukee, WI 53203 (414) 276-2500	13,587 member federation of state funeral directors associations.	The Director, bimonthly; Funeral Service News and Events, bimonthly; Directory of Members, annually; etc.	49 state groups.
National Grange 1616 H Street, NW Washington, D.C. 20006 (202) 628-3507	400,000 member fraternal organization of rural families.	Grange Newsletter, monthly; View from the Hill, monthly; Official Roster, annually; etc.	37 state groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
National Independent Automobile Dealers Association Koger Executive Center 3700 National Drive, Suite 208 Raleigh, NC 27612 (919) 781-2350	8,000 automobile dealers and auto auction owners.	Magazine, monthly.	22 state association affiliates.
National Industrial Council 1776 F Street, NW Washington, D.C. 20006 (202) 626-3700	Federation of 150 state and local associations of manufacturers.	Washington Week, weekly; Directory, annually; Industrial Relations Report, irregular.	See membership information.
National Oil Jobbers Council 1707 H Street, NW Washington, D.C. 20006 (202) 331-1198	15,000 independent wholesale petroleum marketers (jobbers) and retail fuel oil dealers.	Petroleum Marketing Management, bimonthly.	Federation of 42 state and regional associations.
National Paint and Coatings Association 1500 Rhode Island Avenue, NW Washington, D.C. 20005 (202) 462-6272	1,000 manufacturers of paints and chemical coating; suppliers of raw materials and equipment.	Coating (newsletter); Annual Report; also member/services directory.	30 local groups.
National Pest Control Association 8100 Oak Street Dunn Loring, VA 22027 (703) 573-8330	2,500 firms engaged in control of pests, through use of insecticides, rodenticides, miticides, and fumigants.	Affairs, monthly; Pest Management, monthly; Technical Release, monthly; Roster of Members, annually; Governmental Affairs Bulletin, irregular.	46 state groups.
National Rural Electric Cooperative Association 1800 Massachusetts Avenue, NW Washington, D.C. 20036 (202) 857-9500	1,000 rural electric cooperative systems, public power districts, and public utility districts.	Rural Electric Newsletter, 40/year; Rural Electrification Magazine, monthly; Management Quarterly Magazine; Directory, annually.	Members in 46 states.
National School Transportation Association P.O. Box 2639 Springfield, VA 22152 (702) 644-0700	3,000 private owners and operators of school buses (40% of the school buses owned and operated in private enterprise).	Newsletter, 8/year; National School Bus Report, quarterly.	22 state groups..

Table E-3 (continued)

ASSOCIATION

National Soft Drink Association
1101 16th Street, NW
Washington, D.C. 20036
(202) 463-6732

National Solid Wastes Management Association
1730 Rhode Island Avenue, NW
Suite 1000
Washington, D.C. 20036
(200) 659-4613

National Tooling and Machining Association
9300 Livingston Road
Fort Washington, MD 20744
(301) 248-6200

8

Non-Ferrous Founders Society
455 State Street, Suite 100
Des Plaines, IL 60016
(312) 299-0950

Packaged Ice Association
111 East Wacker Drive, Suite 600
Chicago, IL 60601
(312) 644-6610

Paper Industry Management Association
2400 East Oakton Street
Arlington Heights, IL 60005
(312) 956-0250

Petroleum Marketers Association of America
1120 Vermont Avenue, NW
Suite 1130
Washington, D.C. 20005
(202) 331-1198

MEMBERSHIP

1,200 manufacturers of soft drinks and suppliers of materials and services.

2,000 companies in private-sector waste management.

3,700 manufacturers of tools, dies, jigs, fixtures, molds, gages, or special machinery; companies which do precision machining on a contract basis.

200 manufacturers of brass, bronze, aluminum, and other nonferrous castings.

300 manufacturers and distributors of ice.

Professional organization of 3,500 pulp, paper mill, and paper converting production executives.

Independent petroleum marketers who are members of 41 state and regional trade associations.

PUBLICATIONS

Dateline, biweekly; NSDA Quarterly; also publishes important technical developments.

Waste Age, monthly; special bulletins and technical reports.

Record, monthly; Membership Directory, annually; etc.

Crucible, bimonthly.

Ice News, bimonthly; Membership Directory, annually; also management and technical bulletins.

PIMA, monthly; Directory, annually; Handbook, annually.

LOCAL AFFILIATIONS

46 state groups.

Chapters in many states.

65 local groups.

10 local groups.

11 state groups.

11 regional groups.

41 state and regional trade associations.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
Printing Industries of America 1730 North Lynn Street Arlington, VA 22209 (703) 841-8100	11,000 commercial printing firms; allied firms in the graphic arts.	The Capital Letter, weekly; Views, monthly; Communicator, bi- monthly; I.R. Bits & Pieces, bi- monthly; etc.	32 local groups.
Private Carrier Conference 2201 Mill Road Alexandria, VA 22314	5,300 manufacturers, processors, shippers, distributors and jobbers who operate their own truck fleets in transporting their own goods.	Private Carrier Bulletin, semi- monthly; The Private Carrier, monthly.	51 state groups.
Professional Grounds Management Society Seven Church Lane Pikesville, MD 21208 (301) 653-2742	1,200 horticulturists and grounds managers of private estates, parks, cemeteries, and institutions, and persons engaged in businesses related to gardening.	Grounds Management Forum, monthly; Membership Directory, annual.	13 local groups.
Regional Airline Association 1101 Connecticut Avenue, NW Suite 700 Washington, D.C. 20036 (202) 857-1170	260 commuter air carriers trans- porting passengers, cargo, or mail on a scheduled basis (150), and other government and private parties (110).	Magazine, monthly; Annual Report of Commuter Airline Industry.	Includes some state aviation associations as members.
Regional and Distribution Carriers Conference 2201 Mill Road Alexandria, VA 22314	Firms engaged in trucking for hire, including local cartage and short haul.	Newsletter, monthly; Annual Membership Directory.	One local group.
Seaplane Pilots Association 421 Aviation Way Frederick, MD 21701 (301) 695-2083	Individuals interested in water flying and protecting seaplane operator's rights to access lakes, rivers, and waterways throughout the U.S.	Water Flying News, quarterly; Water Flying Annual.	10 regional groups.
Service Station Dealers of America 400 North Capitol Street Suite 175 Washington, D.C. 20006 (202) 393-6868	Service station operators who are members of affiliated state and local associations.	American Dealer, quarterly; Action Gram, irregular.	44 state groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
Small Business Legislative Council 1604 K Street, NW Washington, D.C. 20006 (202) 293-8830	79 trade and professional associations representing 4,000,000 small businesses.	Newsletter, monthly; also publishes brochure.	100 local groups.
Small Business United 69 Hickory Drive Waltham, MA 02154. (617) 484-2335	Ten small business associations representing the interests of small firms on national government issues.		Members in 35 states—1 local; 1 regional; and 8 state groups.
Smaller Business Association of New England 69 Hickory Drive Waltham, MA 02154 (617) 890-9070	1,800 small to medium size businesses of all types in New England.	Small Business News, monthly; SBANE in Washington, 8/year; Membership, annually.	10 local groups.
Society of Collision Repair Specialists P.O. Box 25404 Shawnee Mission, KS 66225 (913) 381-5646	340 owners of automotive collision repair shops; suppliers, insurance, and educational associations.	News, monthly; also technical bulletins.	26 state groups and 5 local groups.
Society of the Plastics Industry 1025 Connecticut Ave., N.W. Suite 409 Washington, D.C. 20036 (202) 822-6700	1,400 manufacturers and processors of molded, extruded, fabricated, laminated, and reinforced plastics.	News Brief, biweekly; Facts and Figures, annually; Membership Directory and Buyer's Guide, annually; etc.	5 regional groups.
Steel Founder's Society of America Cast Metals Federation Building 455 State Street Des Plaines, IL 60016 (312) 299-9160	125 manufacturers of steel castings.	Directory of Steel Foundries, biennial.	5 regional groups.
Tobacco Institute 1875 Eye Street, N.W., Suite 800 Washington, D.C. 20006 (202) 457-4800	Manufacturers of cigarettes, smoking and chewing tobacco, and snuff.	The Tobacco Observer, quarterly; Tobacco Industry Profile, annual; also publishes topical material.	Four regional groups, 49 state groups, and 83 local groups.

Table E-3 (continued)

ASSOCIATION	MEMBERSHIP	PUBLICATIONS	LOCAL AFFILIATIONS
Towing and Recovery Association of America P.O. Box 2517 Winter Park, FL 32790 (305) 647-8588	700 tow truck owners or operators; associate members are wrecker and accessory manufacturers and vendors.	Newsletter, monthly.	30 state groups.
Truck Renting and Leasing Association 1750 Pennsylvania Avenue, NW Suite 1303 Washington, D.C. 20006 (202) 347-2372	300 truck and trailer rental and leasing companies and systems; suppliers to the industry.	Legislative Report, monthly; News Digest, monthly; Vehicle (directory), annually.	37 state groups.
Universal Cooperatives 7801 Metro Parkway Minneapolis, MN 55420 (612) 854-0800	Federation of 37 regional agricul- tural cooperative associations; engages in buying, manufacturing, and merchandising activities.	Universal Buyer-Merchandiser, bimonthly.	See membership information.
Wine and Spirits Wholesalers of America 2033 M Street, NW, Suite 400 Washington, D.C. 20036 (202) 293-9220	800 wholesale distributors of domestic and imported wine and distilled spirits.		42 state groups.

Table E-4 Government Councils and Associations

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SOLID WASTE MANAGEMENT OFFICIALS**
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Table E-4 (continued)

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INTERNATIONAL CONSERVATION, INC.
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National Wildlife Federation
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Washington, D.C. 20036

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Table E-5 (continued)

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Washington, D.C. 20036

Table E-5 (continued)

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CENTER/ENVIRONMENTAL POLICY
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Washington, D.C. 20003

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ENVIRONMENTAL TASK FORCE
Suite 918
1346 Connecticut Avenue, NW
Washington, D.C. 20036

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FEDERAL WATER QUALITY ASSOCIATION
10167 Woodbury Drive
Manassas, VA 22110

FRIENDS OF THE EARTH
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San Francisco, CA 94111

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Executive Director
GLOBAL TOMORROW COALITION
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GREENPEACE U.S.A.
2007 R Street, NW
Washington, D.C. 20009

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Mt. Prospect, IL 60056

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INTERNATIONAL INSTITUTE FOR
ENVIRONMENT & DEVELOPMENT
1319 F Street, NW
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Washington, D.C. 20036

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KEEP AMERICA BEAUTIFUL, INC.
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LEAGUE OF CONSERVATION VOTERS
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Table E-5 (continued)

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Table E-5 (continued)

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In preparing a program budget, two types of costs should be considered: staff time and direct out-of-pocket costs. This appendix includes a step-by-step procedure for estimating costs of the various methods of form distribution and collection and communication discussed in this handbook. It is not likely that any State will use all of these methods; however, the budgeting exercise should provide some guidance in selecting methods within the State's budget.

The cost estimates included in the chapters of this handbook were based on actual experience in other States when available; however, the States often do not have these costs accounted for in detail. In that case, costs were estimated based on other available data.

The cost tables in the chapters of this handbook show a range of costs. Three hypothetical States were used in calculating these ranges. Although the States are "hypothetical," they are based on actual States, as follows. The "low" cost example was based on a western State having a sparse population and not much industrial development. The "medium" cost example is based on a midwestern State that is partly rural and

partly industrialized. The "high" cost example is based on another midwestern State having a much larger population and heavier industrialization. Data for the example States are summarized below. Numbers were rounded for convenience.

USING THIS APPENDIX

This appendix can be used as a worksheet for estimating program costs. Each activity described in this handbook (e.g., direct mail distribution of forms) has a "fill in the blanks" section itemizing expenditures of staff time and direct costs. This section is followed by an example cost estimate worked out based on assumptions for the medium-cost State described earlier.

This appendix should be used as a guide only. Undoubtedly you will want to make adjustments based on circumstances in your State. This outline of costs should, however, help you avoid overlooking a cost item that could otherwise surprise you later in the program.

HYPOTHETICAL STATES USED FOR COST ESTIMATES

Parameters	Low Cost	Medium Cost	High Cost
Population	800,000	5,500,000	10,800,000
No. of USTs	5,500	35,000	70,000
No. of UST owners	1,600	10,000	20,000
No. of counties	16	92	88
No. of newspapers	30	250	360
No. of radio stations	40	200	280
No. of TV stations	10	30	30

COSTS OF FORM DISTRIBUTION

Direct Mail

Staff time:

Writing letter	= _____ hours
Assembling mailing list	= _____ hours
Folding, stuffing, addressing	= _____ hours

Direct Costs:

Postage = cost/piece x no. pieces = \$ _____
 Purchase of mailing lists = \$ _____
 Computer time for sorting = \$ _____
 Copying cost/page x no. pages = \$ _____

Assumptions: The State has USTs at 10,000 sites; 20,000 pieces of mail will be sent. The mailing list will be partly from another State agency and partly purchased. The lists will be merged by computer. Letters will be pre-sorted.

Example:

Writing letter = 8 hours
 Assembling mailing list = 40 hours
 Folding, stuffing, addressing = 40 hours
 Total staff time = 88 hours
 Postage = \$0.18 x 20,000 = \$ 3,600
 Purchase of mailing lists = 1,700
 Computer time for sorting = 6,000
 \$0.10/page x 20,000 = 2,000
 Total direct costs = \$13,300

Mail-on-Request**Staff time:**

Writing cover letter = _____ hours
 Answering phone, processing mail, addressing & stuffing envelopes = _____ hours

Direct costs:

Postage = cost/piece x no. pieces = \$ _____

Assumptions: The State has USTs at 10,000 sites and all request forms. Letters and forms will be sent by First Class mail.

Example:

Writing cover letter = 8 hours
 Answering phone, processing
 mail, addressing & stuffing
 envelopes = 1,800 hours
 Total staff time = 1,808 hours
 Postage = \$0.22 x 10,000 = \$2,200

Local Pickup Points**Staff time:**

Telephone calls to sites = _____ hours
 Packaging forms for mailing = _____ hours
 Training = _____ hours

Direct costs:

Telephone = cost/call x no. of calls to sites = \$ _____

Parcel post = cost/package x no. of packages = \$ _____
or

Delivery truck = cost/package x no. of packages = \$ _____

Training costs = \$ _____

Assumptions: The State has 92 counties; there will be one pickup site per county plus additional sites in cities for a total of 100 sites. Training of on-site personnel will be done in five regions.

Example:

Telephone calls to sites = 40 hours

Packaging forms for mailing = 16 hours

Training = 80 hours

Total staff time = 136 hours

Telephone = \$2/call x 100 = \$200

Parcel post = \$1.50/package x 100 = \$150

Training costs = \$300

Total direct costs = \$650

Toll-free Telephone Number

Staff time:

Training phone personnel = _____ hours

No. persons x days x 8 hours/day = _____ hours

Direct costs:

Monthly charge x no. months = \$ _____

Usage rate/hour x no. hours = \$ _____

Assumptions: The State will use one "800" number at a basic monthly charge of \$120 plus a usage rate of \$20 per hour. The number will be in use for 6 months; actual usage will be 250 hours.

Example:

Training phone personnel = 20 hours

1 person x 120 days x 8 hours/day = 960 hours

Total staff time = 980 hours

\$120/month x 6 months = \$ 720

\$20/hour x 250 hours = 5,000

Total direct costs = \$5,720

COSTS OF COMMUNICATIONS

Press Releases

(No. newspapers + no. radio stations + no. TV stations) x no. releases = _____ pieces of mail.

Staff time:

Preparation time = no. releases x no. hours/release = _____ hours
 Folding, stuffing, addressing time = no. pieces ÷ 100 pieces/hour = _____ hours
 Assembling mailing list time = _____ hours

Direct costs:

Copying cost/page x no. pages = \$ _____
 Envelopes = cost/piece x no. pieces = \$ _____
 Postage = cost/piece x no. pieces = \$ _____
 Photo for 1 mailing @ \$100 + \$1
 for each copy = \$ _____

Assumptions: 5 one-page press releases will be written; each will be sent to all newspapers, radio stations, and TV stations in the State. One press release to newspapers will include a photograph.

Example:

(250 newspapers + 200 radio stations + 30 TV stations) x 5 releases = 2,400 pieces of mail.

Preparation time = 5 releases x 8 hours/release = 40 hours
 Folding, stuffing, addressing time =
 2,400 pieces ÷ 100 pieces/hour = 24 hours
 Assembling mailing list time = 16 hours
 Total staff time = 80 hours

	Newspapers	Radio	TV	Total
Copying @ \$.10/page	\$125	\$100	\$15	\$ 240
Envelopes @ \$5/100	62	50	8	120
Postage @ \$.22/piece	275	220	33	528
Photo @ \$100 + \$1/each copy	350	—	—	350
Total direct costs	\$812	\$370	\$56	\$1,238

Fact Sheets

Staff time:

Preparation time = _____ hours

Direct costs:

Copying cost/page x no. pages = \$ _____

Assumptions: 10,000 2-page fact sheets will be prepared.

Example:

Preparation time = 16 hours

Copying cost = \$.10/page x 10,000 fact sheets x 2 pages = \$2,000

Brochures

Staff time:

Preparation time = _____ hours
 Working with studio/printer = _____ hours

Direct costs:

Cost/brochure x no. brochures = \$ _____
(From table below.)

TYPICAL PRICE RANGES FOR PREPARING BROCHURES*

No. of Brochures	Artwork (dollars)	Printing (dollars)	Total Cost (dollars)	Dollars per Brochure
100	600-1,000	200-400	800-1,200	8.00-12.00
1,000	600-1,000	500-800	1,100-1,800	1.10- 1.80
5,000	600-1,000	1,000-1,500	1,600-2,500	0.32- 0.50

*Single-page (9 by 16 inches) printed on both sides. Costs were obtained from an advertising agency, and will vary regionally.

Assumptions: 10,000 brochures, 9 x 16-inch, folded, printed on both sides, will be prepared.

Example:

Preparation time = 16 hours
Working with studio/printer = 16 hours
Total staff time = 32 hours

\$.50/brochure x 10,000 brochures = \$5,000

Journal Articles

Staff time:

Preparation time = no. articles x hours/article = _____ hours

Direct costs:

Copying cost/page x no. pages x no. journals = \$ _____
Artwork, photos = \$ _____
Postage = cost/article x no. articles x no. journals = \$ _____

Assumptions: Two 10-page articles will be sent to 20 journals and newsletters.

Example:

Preparation time = 2 articles x 30 hours = 60 hours

\$0.10/page x 2 articles x 10 pages x 20 journals = \$ 40

Artwork = 200

\$0.56/article x 2 articles x 20 journals = 22

Total direct costs = \$262

Speeches

Staff time:

Preparation time = _____ hours
No. speeches x travel and speaking time = _____ hours

Direct costs:

Miles driven x cost/mile x no. trips = \$ _____
No. slides x cost/slide = \$ _____
Videotape production = \$ _____

Assumptions: 5 regions of the State with 2 speeches in each region. Use of professionally-prepared videotape or slide show is an option.

Example:

Writing 2 speeches and preparing slides	= 16 hours
10 speeches x 8 hours (travel and speaking time)	= 80 hours
Total staff time	= 96 hours
10 speeches x 100 miles/trip x \$0.20/mile	= \$ 200
Videotape	= 7,000
25 slides x \$6/slide	= 150
Total direct costs speech only	= \$ 200
Speech with slide show	= \$ 350
Speech with videotape	= \$7,200

Public Service Announcements

No. stations x no. PSAs = _____ pieces of mail

Staff time:

Preparation time = no. PSAs x no. hours each = _____ hours
 Folding, stuffing, addressing time = no. pieces ÷ 100 pieces/hour = _____ hours

Direct costs:

Postage = cost/piece x no. pieces = \$ _____
 Copying cost/page x no. pages = \$ _____
 Slides (TV) = \$ _____

Assumptions: 2 PSAs for each radio station and 2 PSAs for each TV station will be prepared and mailed to the stations. Mailing list for press releases will be used.

Example:

200 stations x 2 PSAs = 400 pieces of mail (radio)	
30 stations x 2 PSAs = 60 pieces of mail (TV)	
Preparation time (radio) = 2 PSAs x 8 hours each	= 16 hours
Preparation time (TV) = 2 PSAs x 12 hours each	= 24 hours
Folding, stuffing, addressing time (radio) = • 400 pieces ÷ 100 pieces/hour	= 4 hours
Folding, stuffing, addressing time (TV) = 60 pieces ÷ 100 pieces/hour	= 1 hour
Total staff time (radio)	= 20 hours
Total staff time (TV)	= 25 hours
Postage (radio) = \$.22/piece x 400	= \$88
Postage (TV) = \$.39/piece x 60	= \$24
Copying cost (radio) = \$.10/page x 2 PSAs x 200 stations x 2 pages/PSA x 3 copies/PSA	= 240
Copying cost (TV) = \$.10/page x 2 PSAs x 30 stations x 2 pages/PSA x 3 copies/PSA	= 36
Making slides for TV = \$6/slide x 3 slides/PSA x 2 PSAs	= 36
Copying slides = 3 slides/PSA x \$1/copy x 30 stations x 2 PSAs	= 180
Total direct costs (radio)	= \$328
Total direct costs (TV)	= \$276

Paid Advertising

Newspapers - Staff time:

Preparation time = _____ hours

Newspapers - Direct costs:

No. of ads x cost/ad x no. of newspapers = \$_____

Radio - Staff time:

Preparation time = _____ hours

Radio - Direct Costs:

No. of ads x cost/ad x no. of stations x no. of airings = \$_____

TV - Staff time

Preparation time = _____ hours

TV - Direct costs:

Preparation of slides = \$_____

No. of ads x cost/ad x no. of stations x no. of airings = \$_____

Assumptions: Newspapers - 2 ads placed in 150 newspapers. Radio - 2 one-minute ads to run 5 times on 10 stations. TV - 2 ads to run 5 times on 5 stations.

Example:

Preparation time (newspapers)	= 16 hours
Preparation time (radio)	= 16 hours
Preparation time (TV)	= 16 hours
Total staff time	= 48 hours

Newspapers - 2 ads x \$50/ad x 150 newspapers	= \$15,000
Radio - 2 ads x \$200/ad x 10 stations x 5 airings each	= \$20,000
TV - 2 ads x \$1,000/ad x 5 stations x 5 airings each	= \$50,000
Total direct costs	= \$85,000

Direct mail (mass mailing to large groups of people) is one of the primary methods that have been used for distribution of notification forms to underground storage tank owners. Direct mailing can also be used to send information to UST owners (with or without including forms).

If you have decided to use direct mail in your notification program, this appendix offers some information to make the task easier.

DEVELOPING A MAILING LIST

The mailing list for this program should include as many UST owners as possible. The list of potential tank owners in Appendix D can help you determine the categories applicable in your State. Every State has petroleum-related tanks, and most States have at least some of the listed industries.

Mailing lists can be developed internally, purchased from mailing services, or obtained from other organizations. These alternatives are discussed in detail in subsequent sections.

In-house and Other State Resources

Direct-mail lists can be developed internally. Lists from other departments or agencies in the State can be combined to form a more comprehensive list. These agencies might be those responsible for weights and measures (at service stations, for instance), licensing agencies (e.g., for morticians), port authorities, departments of agriculture, or others.

A special category of the in-house list includes those persons who have called or written to your agency to request forms. Provisions should be made to accommodate those requests and add the names to the permanent list.

Commercial Mailing Services

It is possible to "buy" the use of a mailing list on a one-time basis. These rentals are done through list brokers, who act as clearinghouses for rental lists and as consultants on lists.

There are two types of direct-mail lists: compiled and mail-derived. Compiled lists are gathered from published sources; mail-derived lists are gathered from the return of mail orders, brochure requests, etc. The lists can be rented by paying a price per thousand names; therefore, the target audience must be specified.

The SIC (Standard Industrial Classification) system is a useful means of categorizing the target audience; it is used by many governmental and private agencies. Choosing the appropriate SIC Codes for the target audience will help streamline the process of developing a mailing list. Appendix E lists SIC Codes for target groups of potential UST owners when available. These Codes can be used when ordering lists from list brokers.

Finding the Services. In large cities names of direct-mail companies can be found in the *Yellow Pages* of the telephone book under "Mail Lists." Another source of these companies is *Standard Rate and Data Service*, available in many public libraries. The SRDS volume for direct-mail lists and data gives the names of direct-mail companies sorted according to a master index section. The index is arranged by subject classification. By choosing your target audience, the appropriate list or lists can be more easily selected.

Directories of company names and addresses are available on-line from computer information retrieval services. These directories typically are classified by SIC Codes and are updated quarterly or semiannually. Local libraries may have access to this service through their computer systems. Other sources for computer searches are the State universities and colleges and State libraries; due to State funding, some computer search time may be available free of charge for the appropriate State agency. Normally, a fee is charged when the search is done, the cost being based on the amount of computer time used and the number of records printed. Guarantees regarding percent deliverable and list sources should be investigated before using the service.

Avoiding Duplicate Names. Many of the lists are now computerized and available on magnetic tape or floppy disks. If several lists are needed, the availability on magnetic or floppy disks is important. Merging the lists together and then purging any duplicate names saves on repeat mailings. The cost of the merge/purge technique should be considered compared to the cost of sending the duplicates.

A warning is given in *Standard Rate and Data Service* on the duplication of names. Often companies pool resources to compile their lists, but then sell the lists individually under different titles. To correct this problem, it is wise for the list renter to ask questions concerning the source of the list and about the list owner's identification. Large orders should have the merge/purge technique used on them.

Other Organizations

Organizations such as trade associations and chambers of commerce, which often include tank owners among their members, are a potential source of mailing list information, based on membership lists and mailing lists from their publications and journals. Furthermore, each such organization potentially can provide a means of reaching hundreds of tank owners through a single contact.

By selecting appropriate trade organizations, tank owners can be reasonably targeted for direct mailing. Additionally, the trade associations may be good targets for a direct-mail package. Associations can be selected from the *Encyclopedia of Associations* or from a State directory of associations available through a State chamber of commerce, State department of economic development, or similar source. Appendix E contains lists of associations that may have members who own underground tanks. The appendix defines which national trade associations have State or regional chapters.

National or State trade associations may provide a list of members in the State or a copy of the association's membership directory. Unfortunately, some associations have indicated that they will not give out a list of their members. Others will not disclose their membership, but will send information to their members if the State will pay costs; others are only willing to provide coverage in their journals and newsletters.

Cooperation can often be gained from a trade association if its officials are convinced that a cooperative relationship will serve its members' best interests. California, however, dealt with dozens of trade associations, but received a membership list from only one. If the cooperation of trade associations can be gained and held, program implementation will be facilitated.

ADDRESSING DIRECT MAIL

If you develop mailing lists in-house, no doubt you will also be addressing envelopes. If you purchase mailing lists, however, you may want to purchase labels or other helpful aids as well.

If a list is purchased, "Cheshire" or ungummed labels for use with machine application may be available for no extra charge. Pressure-sensitive (peel and stick) labels are also available, at an additional cost per thousand. The list may also be provided on magnetic tapes or floppy disks for in-house printing. Index cards are also available at an additional charge.

Checking with the list seller is advised; costs and list formats available for the list in question will vary with the supplier.

COSTS OF DIRECT MAILING

In addition to preparing the material to be mailed (forms, letters), other costs will be incurred for the direct mailing. You should consider the following kinds of costs:

- Assembling the mailing list
- Addressing, folding, and stuffing the material into envelopes
- Envelopes
- Postage.

Assembling the Mailing List

If you obtain a mailing list from other departments of the State government, such as the department of revenue, weights and measures, etc., then the list may be essentially free. However, there is likely to be some overlap of lists, which will take time to purge of duplicates. If the list is not purged for duplicates, unnecessary costs for printed material and postage are incurred.

Mailing lists based on SIC Codes may be rented for one-time mailings from brokers for \$35-\$120 per 1,000 names. Rates are available from *Standard Rate and Data Service* or from individual companies. If more than one list is purchased from the same company, the lists may be merged and purged of duplicates by the company at no additional cost.

Rented lists may be combined with lists generated from other sources by hand or by computer. The rented lists may be obtained on magnetic tape or floppy disks to assist in computer sorts. For their notification program, the State of Florida combined and sorted four separate overlapping lists (38,500 total), including a purchased SIC list, using 53 hours of in-house computer time at a cost of \$5,900. Their purchased list of 15,000 names cost approximately \$1,800.

Addressing, Folding, and Stuffing

The cost of getting the material ready to mail is primarily a time cost. The actual time required per 1,000 pieces of mail depends on the form of the mail list, i.e., typed list, gummed labels, etc., and on the amount of folding, stapling, and envelope stuffing done.

Envelopes

The purchase of envelopes will of course be a cost factor. Costs will be affected by envelope size and whether or not your agency chooses to print its return address and logo on the outside. (See Chapter 3.) Inclusion of a return envelope and printing the agency's address on it will also be a cost factor.

Postage

The amount of postage required depends on the kind of mail and size of your mailing. If the mailing is small (less than 200 pieces per mailing) or personalized, it should be sent first class. However, if there are over 200 pieces per mailing, bundled by zip code, you can realize a considerable savings by using third class mail.

The bulk postage rate in 1985 is 12½ cents per piece under 3.5 ounces after paying a \$50 per year fee. By comparison, a 3.5-ounce first class mailing costs 73 cents each.

SUMMING UP

If you decide to do a mass mailing, you should be prepared to develop a mailing list and to implement a system for addressing large quantities of mail, in addition to developing the materials that will be distributed by the mailing. Costs for a mass mailing can be high, but savings can be realized through careful planning for the material mailed, use of in-house sources of mailing lists where possible, and careful targeting of the mailing to potential UST owners.

Chapter 4 of this handbook describes tried and tested methods for publicizing your program. Most of the publicity methods described have been successfully used by other States in implementing their notification programs.

This appendix includes supplementary information on the most basic tools of publicity: press releases, speeches, and radio and television announcements. In addition, a list of resources that may be helpful to you is included at the end of the appendix.

PRESS RELEASES

Photographs and press kits are two methods for enhancing the effectiveness of your press releases. Some suggestions for their use are included in this section.

Photographs

Press releases sent to newspapers may attract more attention if they are accompanied by photographs. In many instances, however, the newspapers may prefer to take their own photographs. If you do include a photo with the press release, it should be a glossy black and white print at least 5 by 7 inches in size. Identification should be typed on a piece of paper and taped to the back of the photo. The photo should not be damaged by bending, paper clipping, stapling, or marking. When mailing, the photo should be protected with cardboard.

Ideas for photographic subjects could include the damaging effects of a leaking underground storage tank, a State or local official announcing the notification program, notification forms being distributed, or the featured speaker at an informational meeting or seminar.

Press Kits

Reporters generally like to write their own stories rather than use a press release verbatim. To provide reporters with good background information, you may want to provide a press kit. This could include a fact sheet or brochure with complete information on the notification program, perhaps including information on the entire underground storage tank program. A photo and a relatively short press release could be included as well. This kit should be sent out in plenty of time (two weeks or more) for a reporter to write a complete story, making personal contacts if desired.

SPEECHES

As described in Chapter 4, speeches are an essential part of an informational program. This section of the appendix provides an expanded discussion of various opportunities for speech-making. In addition, suggestions for preparing visual aids are included.

Speech Opportunities

Briefings are generally given by one or more knowledgeable people to inform others who are in a position to take some action. Thus your State agency personnel may brief other State personnel, or they may brief other groups—fire chiefs, local officials, trade associations, agricultural agents—that can in turn communicate tank notification requirements around the State.

Workshops and seminars are generally held to educate groups of people. Typically the speakers come from a variety of organizations and areas of expertise to discuss the general topic. Your State agency could sponsor one or more workshops or seminars on tank notification around the State, involving many groups. These should be planned to reach key people, who can in turn inform others.

Conferences are usually scheduled events held annually or on some other set schedule by various groups. Your State agency could provide speakers on tank notification requirements at any relevant conferences around the State. Good contacts with trade associations, environmental groups, and other organizations should yield invitations to speak at these events.

Meetings are held regularly by many groups that may include storage tank owners. These could include trade associations; Farm Bureau or other farmers' groups; community organizations such as Rotary or Kiwanis; chambers of commerce; State or local government agencies that may have motor pools or other reasons for having USTs; and organizations of government officials such as Councils of Mayors and the National Association of Counties. Other groups may have an interest in locating underground storage tanks, even if they own none. Examples of these groups include the League of Women Voters, school organizations, and environmental groups.

It would be difficult for your State personnel to reach all these groups, but by training other speakers at briefings, workshops, or seminars, effectiveness can be multiplied.

United States
Environmental Protection Agency
Washington DC 20460

November
1985

Who To Notify

The notification forms must be sent to the designated state agency that has jurisdiction over the area in which the underground storage tank is located. In the *Federal Register* of November 8, 1985, EPA published notification forms along with the names of state agencies designated to receive them. Some states have chosen to require additional information and are using separate state forms or addenda to the EPA form. Owners of underground storage tanks may call EPA Regional Offices to obtain the name of the appropriate agency in each state to contact for forms and information.

The Penalties

As a means of enforcing the notification requirements, a penalty not to exceed \$10,000 can be assessed for each tank for which notification is not given or for which false information is submitted.

EPA Regional UST Offices

EPA Region 1
JFK Federal Building
Boston, MA 02203
(617) 223-6883
Connecticut, Massachusetts,
Maine, New Hampshire,
Rhode Island, Vermont

EPA Region 2
26 Federal Plaza
New York, NY 10007
(212) 264-0504
New Jersey, New York,
Puerto Rico, Virgin Islands

Field Component
Caribbean Field Office
P.O. Box 792
San Juan, PR 00902
(809) 725-7825

EPA Region 3
6th and Walnut Streets
Philadelphia, PA 19106
(215) 597-0908
Delaware, Maryland,
Pennsylvania, Virginia,
West Virginia, District of Columbia

EPA Region 4
345 Courtland Street NE
Atlanta, GA 30365
(404) 881-3018
Alabama, Florida, Georgia,
Kentucky, Mississippi,
North Carolina, South
Carolina, Tennessee

EPA Region 5
230 South Dearborn Street
Chicago, IL 60604
(312) 886-7435
Illinois, Indiana,
Michigan, Minnesota,
Ohio, Wisconsin

EPA Region 6
1201 Elm Street
Dallas, TX 75270
(214) 767-2645
Arkansas, Louisiana,
New Mexico, Oklahoma,
Texas

EPA Region 7
726 Minnesota Avenue
Kansas City, KA 66101
(913) 236-2852
Iowa, Kansas, Missouri,
Nebraska

EPA Region 8
1860 Lincoln Street
Denver, CO 80295
(303) 293-1182
Colorado, Montana,
North Dakota, South
Dakota, Utah, Wyoming

EPA Region 9
215 Fremont Street
San Francisco, CA 94105
(415) 974-8119
Arizona, California, Hawaii,
Nevada, American Samoa, Guam,
Trust Territories of the Pacific

EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101
(206) 442-2782
Alaska, Idaho, Oregon,
Washington



Notification Requirements for Owners of Underground Storage Tanks

There are from three to five million underground storage tanks in the United States that contain hazardous substances or petroleum products. Thousands of tanks are presently leaking, and many more are expected to leak within the next 5 years.

In response to this problem, Congress passed amendments to the Resource Conservation and Recovery Act (RCRA) in November 1984. This new legislation—the Hazardous and Solid Waste Amendments of 1984—contains a new RCRA provision which creates a program to control and prevent releases from underground storage tanks (USTs).

To assist the states in locating and evaluating underground storage tanks, Congress included requirements for owners of such tanks to notify designated state or local agencies.

Substances Covered

The notification requirements apply to underground storage tanks that contain regulated substances. This includes all petroleum products (including crude oil) and all substances defined as hazardous under the Superfund legislation, except substances already regulated as hazardous wastes under Subtitle C of RCRA. (Note: A list of covered substances may be obtained from EPA offices or from the list of CERCLA* hazardous substances that appeared in the *Federal Register* on April 4, 1985 [50 FR 13456].)

Who Must Notify

Owners must notify if their underground storage tanks are used to store or dispense regulated substances on or after November 8, 1984. For underground storage tanks taken out of use between January 1, 1974, and November 8, 1984, any person who owned such a tank immediately before the discontinuation of its use must notify the designated state agency. (Note: Owners do not have to notify if they already have provided notice to EPA of their tanks pursuant to CERCLA section 103(c) or if they know that their tanks have been removed from the ground.)

To ensure that owners of underground storage tanks are informed of their responsibility to notify, Congress imposed certain obligations on

tank sellers and on persons who deposit regulated substances in tanks. From December 8, 1985 through June 8, 1987, anyone depositing regulated substances in an underground storage tank must inform the owners or operators of such tanks of the notification responsibility. Beginning 30 days after EPA issues new-tank performance standards (sometime in 1987) sellers of underground storage tanks must inform tank purchasers of the notification requirements.

Tanks Covered

As defined in the new law, "underground storage tank" includes any one or combination of tanks that (1) are used to contain an accumulation of "regulated substances," and (2) whose volumes (including connected piping) are ten percent or more beneath the ground.

Subtitle I exempts certain facilities. These exemptions include farm and residential tanks of less than 1,100 gallons storing motor fuel for noncommercial purposes; on-site heating oil storage tanks; septic tanks; pipelines regulated under other authorities; surface impoundments, pits, ponds, or lagoons; storm water or wastewater collection systems; flow-through process tanks; liquid traps or associated gathering operations; and storage tanks in an underground area (such as in a basement), but above the surface of the floor.

When To Notify

Owners of underground storage tanks in use must notify by May 8, 1986, and provide information about the age, size, type, location, and use of each tank.

Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use and include information on the age, size, type, location, and use of such tanks.

Owners of underground storage tanks taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. Owners of these tanks are also required to provide, to the extent known, information on the date the tank was taken out of operation; the age of the tank on the date taken out of operation; the size, type, and location of the tank; and the type and quantity of substances left stored in such tank on the date taken out of operation.

* Comprehensive Environmental Response, Compensation, and Liability Act of 1980

UNDERGROUND STORAGE TANKS:
THE FEDERAL NOTIFICATION REQUIREMENTS

INTRODUCTION

There are from three to five million underground storage tanks in the United States that contain hazardous substances or petroleum products. Thousands of tanks are presently leaking and many more are expected to leak in the next five to ten years. On November 8, 1984, President Reagan signed the Hazardous and Solid Waste Amendments of 1984 (P.L. 98-616), extending and strengthening provisions of the Resource Conservation and Recovery Act (RCRA), the Federal law protecting human health and the environment from improper waste management practices. One of the new RCRA provisions, Subtitle I, calls for a program to control leaks from underground storage tanks (UST). The Federal UST program applies to underground tanks that store petroleum, including gasoline crude oil, and used oil. It also regulates tanks storing substances defined as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Tanks storing hazardous wastes, which are regulated under Subtitle C of RCRA, are not covered.

An underground storage tank is defined as any tank (including connected piping) with 10 percent or more of its volume below ground, with the following exceptions: farm and residential motor fuel tanks of less than 1,100 gallons capacity; tanks storing heating oil that is consumed on-site; septic tanks; pipelines regulated under other laws; systems for collecting storm water and wastewater; flow-through process tanks; liquid traps or associated gathering lines related to operations in the oil and natural gas industry; and tanks in an underground area, such as a basement, if the tank is above or on the surface of the floor.

The UST legislation was developed by Congress in response to a growing number of groundwater contamination incidents that were caused by products leaking from underground storage tanks. As a first step to assist States in evaluating the magnitude of this problem, Congress established UST notification requirements. These require UST owners to provide information such as the age, size, and uses of their tanks. This data will be used in analyzing the scope of the UST problem and will help EPA and the States to develop reasonable regulations for new and existing tanks. Future rules will cover such areas as tank design and construction; leak detection and recordkeeping; and clean up where leaks have occurred.

Table 1 provides a summary of the notification provisions that were signed into law. These requirements apply principally to owners of underground storage tanks that have been used to store regulated substances on or after November 8, 1984. They

EXAMPLE JOURNAL ARTICLE

also apply to owners of underground storage tanks that were taken out of service (but left in the ground) after January 1, 1974.

EPA'S ROLE

The notification provisions provide that EPA prescribe the form of the notice and the information to be contained in it. The legislation also provided that the State or local governments, not EPA, receive the notification forms. On May 28, 1985, the EPA proposed notification regulations that essentially codified the UST statutory requirements. The Agency also proposed notification forms for owners of underground storage tanks. The use of the Federal forms would be mandatory in all States except in those that have developed comparable State forms. To be certain which notification form should be used, tank owners should contact the appropriate State agency designated to receive the forms. Table 2 provides a list of these agencies. EPA is assisting States in communicating the notification requirements through an extensive public outreach effort that has involved representatives of State and local governments, environmental groups, industry, and trade associations. EPA is also helping State programs responsible for UST notification with a variety of public education tools -- brochures, slide shows, and video programs.

STATES' ROLE

The extent to which a State will participate in the implementation of the notification requirements may depend on how important it is for the State to obtain an accurate inventory of the tanks within its borders. Some States may determine that their only legal obligation is to designate an agency to receive the notification forms, and will not take further steps to ensure that notices are received and processed into a useful inventory. Other States, particularly those with significant numbers of tanks or with groundwater supply or contamination problems, may take a more positive stance to allow them to respond to this emerging environmental problem. A few States are well under way in the implementation of notification programs. Instead of waiting for EPA to prescribe a notification form, they have developed their own forms and systems to process the forms.

A major undertaking by the States will be to communicate the notification requirements to the regulated public and to distribute the forms. Those States that have already implemented notification programs as well as those that are developing programs realize that increased public awareness and response to UST regulations depend upon an effective communications strategy. States have identified a number of useful communication tools: workshops, press releases, direct mail, and public forums. The most effective tool seems, however, to be the use of trade associations to communicate the UST regulatory requirements to the affected

(3)

TABLE 1
NOTIFICATION SCHEDULE

<u>Provisions</u>	<u>Time Frame for Enactment</u>
• State Governors must designate the State or local agency to receive the UST notification forms	• By May 8, 1985
• EPA must prescribe the form of notice and the information it is to contain	• By November 8, 1985
• Owners of existing underground storage tanks must notify the State or local agency of each tank's age, size, type, location, and uses	• By May 8, 1986
• Owners of underground storage tanks taken out of operation after January 1, 1974, but still in the ground, must notify the State or local agency of each tank's age, size, type, location, uses, the date taken out of service, and the type and quantity of substance left in the tank	• By May 8, 1986
• Owners who bring into use underground storage tanks after the initial notification period must notify the State or local agency within 30 days of bringing the tank into use	• After May 8, 1986
• Anyone who deposits petroleum or CERCLA hazardous substances in an underground storage tank must inform the tank owner of his responsibility to notify the State or local agency	• Beginning 30 days after EPA issues the final notification form (currently projected as November 8, 1985) and for 18 months thereafter
• Tank sellers must inform tank buyers of their responsibility to notify the State or local agency	• Beginning 30 days after EPA issues final regulations for new tanks (currently projected as February 1987)
• A penalty not to exceed \$10,000 can be assessed for each tank for which notification is not given or for which false information is submitted	

public. This is due to the number and diversity of regulated tanks that exist over a wide range of industry segments. Many States, in fact, view the participation of trade associations as essential and plan to rely on them extensively to reach tank owners.

CONCLUSIONS

It is obvious that registering and regulating underground storage tanks add to paperwork and take time and effort away from running a business. But many benefits can be derived from the program. Complete and accurate information on the notification forms will provide States with the data necessary for adopting regulations that are sensible and that impose an appropriate degree of control. Such controls may ultimately prevent loss of product, limit owner liability, and increase insurability. Leaks from tanks can contaminate ground water, which may lead to lawsuits and cleanup costs. The sooner problems are identified, of course, the less expensive they are to clean up. Finally, noncompliance with the program to control underground storage tanks carries heavy civil penalties-- a strong economic incentive.

OUTLINE FOR A SPEECH ON UST NOTIFICATION

- I. INTRODUCTION
- II. REASONS FOR THE UST PROGRAM
 - A. Damage to health and the environment
 - B. Economic costs
- III. OVERVIEW OF THE UST PROGRAM
 - A. Interim Prohibition
 - B. Notification
 - C. New Tank Performance Standards
 - D. Regulations
 - E. State authorization
- IV. THE UST NOTIFICATION PROGRAM
 - A. Definitions
 - B. Timing
 - C. Obligations of depositors of regulated substances
and tank sellers
 - D. Penalties
 - E. EPA's role
 - F. The State's role
- V. STATE NOTIFICATION PROGRAM
 - A. Agency responsible
 - B. Where to get forms
 - C. How to fill out forms
 - D. Where to send forms
 - E. How to get further information
- VI. SUMMARY

EXAMPLE SPEECH

THE UNDERGROUND STORAGE TANK NOTIFICATION PROGRAM

A new law enacted by Congress last year will affect nearly everyone who owns an underground storage tank containing petroleum products or other hazardous substances. This law, which was prompted by concern for our environment, requires tank owners to notify the State in the near future. Other requirements will follow in the next few years.

If you watch TV or read the newspapers, you probably have heard of instances in which leaks of hazardous substances from underground storage tanks have endangered human health and the environment. In Dover-Walpole, Massachusetts, for example, over 3,000 gallons of gasoline leaking from a service station contaminated 15 private wells in 1981. In another instance, an estimated 17 million gallons of gasoline, fuel oil, and naphtha lie beneath a large section of Brooklyn, New York as the result of accumulated storage tank leaks over a period of many years.

On the other side of the country, toxic chemical leaks from underground storage tanks in San Jose, California--Silicon Valley--have been found at 30 different sites. Some of the chemicals are suspected carcinogens, and studies have shown a higher-than-normal incidence of miscarriages in the area.

The direct and indirect costs of these leaks can be tremendous. In the Dover-Walpole case, the owner of the service station has provided the residents with bottled water for drinking and installed filters in homes to clean up the water for other uses. The company has paid about 1.25 million dollars thus far for engineering, soil excavation, and removal, product recovery, and extension of the town water mains. Property damage suits are still outstanding. In the Brooklyn instance, an estimated 5 million dollars has been spent on product recovery alone. Following a gasoline leak that caused an explosion in Northglenn, a suburb of Denver, Colorado, a Federal court forced the service station owner to purchase 41 homes at 2.2 times their appraised value. The company is estimated to have spent over 10 million dollars.

Leaks from underground storage tanks can:

- Harm public health
- Damage our environment
- Cost money

If a company or individual tank owner cannot pay the cost of cleanup, then the taxpayers usually pay. Therefore we can all be affected, at least indirectly, by leakage incidents.

These are just a few examples of the kinds of incidents that have prompted Congress and many of the States to require programs to control underground tank leaks. The problem is large--the U.S. Environmental Protection Agency has estimated that there are more than one million underground storage tanks in the United States containing hazardous substances or petroleum products, and that up to one-half of these tanks are either leaking now or expected to leak in the next few years.

The new law governing underground storage tanks is part of the 1984 Amendments to the Resource Conservation and Recovery Act. These amendments require several things:

1. After May 1985, new underground storage tanks containing regulated substances may not be installed unless they are protected against corrosion, are structurally sound, and are compatible with the material to be placed inside them. (This is called the Interim Prohibition.)
2. Owners of underground storage tanks containing regulated substances must notify the designated State agency by May 8, 1986. (This will be explained in detail later.)
3. EPA must develop new tank performance standards by February 1987 for tanks holding petroleum products, and by August 1987 for tanks holding hazardous chemicals.
4. EPA must develop regulations governing leak detection, leak cleanup, recordkeeping, closure of tanks, and reporting of leaks by February 1987 for tanks holding petroleum products, and by August 1988 for tanks holding hazardous chemicals.

1984 Congressional underground tank law:

1. Interim Prohibition on new unprotected tanks
2. State notification by tank owners
3. EPA Performance Standards for new tanks
4. EPA Regulations for all tanks
5. State programs in lieu of Federal program

5. States may apply for authorization to operate an underground storage tank program themselves.

The main topic for today is the notification program, which is of immediate concern to underground storage tank owners and the State. First, we should review how Congress defined some important terms.

The new law applies to underground storage tanks that (1) are used to contain an accumulation of regulated substances; and (2) whose volume (including connected piping) is 10 percent or more beneath the ground. Certain facilities are exempted. These exemptions include hazardous waste tanks, farm and residential tanks of less than 1,100 gallons storing motor fuel for noncommercial purposes; on-site heating oil storage tanks; septic tanks; pipelines regulated under other authorities; surface impoundments, pits, ponds, or lagoons; storm water or wastewater collection systems; flow-through process tanks; liquid traps or associated gathering operations; and storage tanks in an underground area (such as in a basement but above the surface of the floor).

The notification requirements apply to underground storage tanks that contain regulated substances. This includes liquid petroleum products and all substances defined as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (usually called Superfund). The law covers almost all chemicals including gasoline, diesel fuel, and industrial solvents.

Owners of underground storage tanks used to store or dispense regulated substances on or after November 8, 1984 must notify the State agency. For underground storage tanks in use after January 1, 1974, but taken out of service before November 8, 1984, the person who owned the tank immediately before the discontinuance of its use must notify the State agency.

Regulated underground storage tanks:

- Contain "regulated substances"
 - All petroleum products
 - All chemicals listed under Superfund
- Are 10% or more beneath the ground
(including piping)

Exceptions:

- Hazardous waste tanks
- Farm and residential motor fuel tanks less than 1,100 gallons
- On-site heating oil tanks
- Septic tanks
- Pipelines
- Impoundments, pits, ponds, or lagoons
- Storm water or wastewater collection
- Flow-through process tanks
- Liquid traps
- Tanks in a basement

Up to \$10,000 penalty for:

- Non-notification
- False information

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
Status of Tank (Mark all that apply <input type="checkbox"/>) <div> Currently in Use <input type="checkbox"/> Temporarily Out of Use <input type="checkbox"/> Permanently Out of Use <input type="checkbox"/> Brought into Use after 5/8/86 <input type="checkbox"/> </div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Estimated Age (Years)					
3. Estimated Total Capacity (Gallons)					
4. Material of Construction (Mark one <input type="checkbox"/>) <div> Steel <input type="checkbox"/> Concrete <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____ </div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Internal Protection (Mark all that apply <input type="checkbox"/>) <div> Cathodic Protection <input type="checkbox"/> Interior Lining (e.g., epoxy resins) <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____ </div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. External Protection (Mark all that apply <input type="checkbox"/>) <div> Cathodic Protection <input type="checkbox"/> Painted (e.g., asphaltic) <input type="checkbox"/> Fiberglass Reinforced Plastic Coated <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____ </div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Piping (Mark all that apply <input type="checkbox"/>) <div> Bare Steel <input type="checkbox"/> Galvanized Steel <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Cathodically Protected <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____ </div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply <input type="checkbox"/>) <div> a. Empty <input type="checkbox"/> b. Petroleum <div> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Gasoline (including alcohol blends) <input type="checkbox"/> Used Oil <input type="checkbox"/> Other, Please Specify _____ </div> c. Hazardous Substance <input type="checkbox"/> <div> Please Indicate Name of Principal CERCLA Substance _____ OR Chemical Abstract Service (CAS) No. _____ </div> Mark box <input type="checkbox"/> if tank stores a mixture of substances </div> d. Unknown <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Additional Information (for tanks permanently taken out of service) <div> a. Estimated date last used (mo/yr) _____ </div> b. Estimated quantity of substance remaining (gal.) _____ <div> c. Mark box <input type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete) </div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0049
APPROVAL EXPIRES 6-30-88

9650.3

I.D. Number

STATE USE ONLY

Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records or, in the absence of such records, your knowledge, belief, or recollection.

Must Notify? Section 9002 of RCRA, as amended, requires that, unless directed by State or local agencies of the existence of their tanks. Owner means — the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank at the time of storage, use, or dispensing of regulated substances, and the case of any underground storage tank in use before November 8, 1984, any person in use on that date, any person who owned such tank immediately before the time of storage, use, or dispensing of regulated substances.

Tanks Are Included? Underground storage tank is defined as any one or more tanks that (1) is used to contain an accumulation of "regulated substances" and (2) whose volume (including connected underground piping) is 10% or more of the ground. Some examples are underground tanks storing: 1. gasoline, oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. residential tanks of 1,100 gallons or less capacity used for storing motor fuel for commercial purposes;

2. tanks used for storing heating oil for consumptive use on the premises where stored; and

3. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;

4. surface impoundments, pits, ponds, or lagoons;

5. storm water or waste water collection systems;

6. flow-through process tanks;

7. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;

8. storage tanks situated in an underground area (such as a basement, cellar, mine, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Use type or print in ink all items except "signature" in Section V. This form must be completed for notification containing underground storage tanks. If more than 5 tanks are owned at this location, copy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

I. OWNERSHIP OF TANK(S)

Name (Corporation, Individual, Public Agency, or Other Entity)

Address

State

ZIP Code

Code Phone Number

Owner (Mark all that apply ☒)

Current ☐ State or Local Gov't

Former ☐ Federal Gov't (GSA facility I.D. no. _____)

☐ Private or Corporate

☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here ☐)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest)

State

ZIP Code

Indicate number of tanks at this location

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

(If same as Section I, mark box here ☐)

Job Title

Area Code

Phone Number

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

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 notified information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative

Signature

Date Signed

CONTINUE ON REVERSE SIDE

Tank notification form includes:

- Owner
- Location
- Contact person
- Age
- Size
- Type
- Use

To enforce the notification requirements, Congress provided for a civil penalty of up to 10 thousand dollars for each tank for which notification is not given or for which false information is submitted.

The only requirement that Congress placed on the U.S. Environmental Protection Agency was the development of the notification form. This form was published in November 1985. It includes space to provide information about the age, size, type, location, and use of each tank, as required by Congress.

The States were required by Congress to receive the underground storage tank notification forms. The Agency conducting the program in our State is _____.

[At this point information on your State's program should be inserted. If time is limited, it is preferable to maximize the amount of detail devoted to the specifics of your State program rather than the more general information.]

A suggested outline for your State Notification Program is:

- Agency responsible
- Where to get forms
- How to fill out forms
- Where to send forms
- How to get further information]

In summary, leaks of hazardous substances from underground storage tanks can be a serious threat to public health and to the environment. Steps are being taken both nationally and in (name of State) to correct these problems. The notification program is the first step in this effort, and cooperation will ultimately be beneficial to all.

(End)

Notification forms due:

- By May 8, 1986 for
 - Tanks in use
 - Tanks taken out of operation
after 1973 but still in the
ground
- Within 30 days for new or used tanks
placed in the ground after May 8, 1986

The timing and content of the notification was also set by Congress. Owners of underground storage tanks in use must notify the State by May 8, 1986. Owners who bring underground storage tanks into use after May 8, 1986, must notify the State within 30 days of bringing the tanks into use. Owners of underground storage tanks taken out of operation after January 1, 1974, but still in the ground, must notify the State by May 8, 1986. Owners of these tanks are also required to provide, to the extent known, information on the date the tank was taken out of operation; the age of the tank on the date taken out of operation; the size, type, and location of the tank; and the type and quantity of substances left stored in the tank on the date taken out of operation.

Obviously owners of underground storage tanks must be informed about their responsibility to notify the State. As one means of spreading the word, Congress requires people who deposit regulated substances in underground storage tanks and sellers of underground storage tanks to inform tank owners of their notification responsibilities.

From December 8, 1985, through June 8, 1987, anyone depositing regulated substances in an underground storage tank must notify the owner or operator of the tanks of the owner's notification responsibilities. This means that a gasoline jobber, for example, must in some manner tell the owner or operator of each service station he supplies about the notification requirement. This might be done by providing a statement on the invoice describing the notification requirements, or by leaving a copy of the notification form with the tank owner.

Beginning 30 days after the U.S. EPA issues new tank performance standards, those selling underground storage tanks have to inform the purchasers of these tanks of the owner's notification requirements. This is scheduled to be in February 1987 for tanks holding petroleum products and in August 1987 for tanks holding hazardous chemicals. This also might be done by a notice on the invoices or by leaving a copy of the notification form with the tank purchaser.

Radio and television offer opportunities to appear on talk shows or give interviews on tank notification.

Press conferences provide an opportunity to reach the newspapers, radio, and television shows with information. Press conferences should be used for major announcements; California used this method to announce the beginning of their tank registration program. A "big name" will help attract attention. Press releases and phone calls to editors and broadcast stations should precede the press conference by a week.

Booths and displays at fairs, conferences, or other gatherings provide another opportunity to discuss notification with people. This requires some effort and production of materials to hand out, but may be effective if the site is well chosen.

Visual Aids

Speeches can often be made more interesting and easier to give with the use of visual aids. This section includes some suggestions for these.

Slides are probably the most popular visual aids for speeches. A slide show with a prepared script can even be used by a relatively inexperienced or uninformed speaker. (Questions may be a problem in that situation, however.) Many speakers like slide shows because they can be edited or stopped for questions.

Some general guidelines for slide shows are:

1. Write the script first, then select or make slides to illustrate it.
2. Use action shots if possible to make the show more interesting.
3. Use word slides with action shots to give information and provide a change of pace.

Overhead transparencies are also popular visual aids frequently used by speakers. An advantage of overhead projectors is the ability to keep the lights on, and the speaker can face the audience. Also, transparencies may have a cost advantage, as they can be made in-house on many copy machines. A good original will produce a good transparency.

While most groups have a projector to show 35-millimeter slides, overhead transparencies require a special projector. This should be taken into account when planning your speech opportunities.

Videotapes have been suggested as a means of communicating notification requirements, but these would be relatively expensive for your State to provide. Videotapes can, however, be sent to meetings instead of a person to give a speech, thus saving time and travel expenses. You will probably want to check with your State Fire Marshal regarding the National Fire Protection Association videotapes.

Pamphlets, brochures, and fact sheets can be very useful supplements to speeches. They can be handed out so that people in the audience have factual material to take home with them.

RADIO AND TELEVISION ANNOUNCEMENTS

Chapter 4 includes a discussion of radio and television publicity. This appendix provides some suggestions for preparing public service announcements, which the stations carry without charge.

In addition, this appendix contains a discussion of targeting the listening audience and of the costs of placing commercial announcements.

Preparing PSAs

If your State has a public relations department, they can probably assist you in writing and distributing PSAs. If you must prepare the PSAs yourself and have not had experience along these lines, there are some general rules to follow:

- Type triple space on white or light-colored bond or letterhead paper. Leave generous margins.
- If letterhead is not used, type your Agency's name and address at the top of the page. Add a contact name and telephone number.
- Type PUBLIC SERVICE ANNOUNCEMENT at the top of the page. Add FOR IMMEDIATE RELEASE or specify dates for use.
- Type the time the spot will take to read. Allow 10 seconds of reading time for every 20 to 25 words. Standard lengths for PSAs are 10, 20, 30, and 60 seconds.
- Use simple words that will sound natural when read aloud. Try reading the announcement yourself.
- Give all the facts—who, what, when, where, and why.
- Include slides for television PSAs. As a rule of thumb, one slide should be furnished for each 10 seconds of spoken words. Pictures for the slides should be appropriate for your State.
- Submit several copies of each announcement.
- Submit PSAs well in advance of the desired dates for broadcast—10 days would be advisable.
- Include a fact sheet or brochure so the public service director can understand the need for the PSA.

Targeting the Audience

Radio offers an unique ability to target an audience. While most newspapers and the network TV stations try to appeal to a broad spectrum of tastes, radio stations tend to specialize. Owners of underground storage tanks are not a homogeneous group, but some targeting can be done, especially if your resources are limited. **Broadcasting Yearbook**, a source listed at the end of this appendix, gives information on the type of programming each radio station offers.

If your State can afford to purchase commercial time on radio or TV, a tradeoff will have to be made between cost and size of audience reached. **Standard Rate and Data Service**, a standard reference available at large libraries, will provide advertising rates for radio and TV stations in your State.

Costs of Commercial Time

If you intend to use commercial announcements (for radio, as well as TV and newspapers), it may be advisable to develop the announcements with the help of an advertising agency. Many advertising agencies make no charge for writing copy and preparing layouts in connection with commissionable advertising. Others, however, charge the client at cost plus a percentage (15 to 18 percent).

The costs for radio advertising vary considerably with the type of station and the time of day the commercial is aired. The morning drive time (5 a.m. to 10 a.m.) is the most expensive. A commercial in this time slot can range in cost from as much as \$450 per minute on a major station to as low as \$15 on a small suburban station. Afternoon drive times are also expensive. Costs drop considerably for daytime and evening broadcasts.

Buying advertising time from individual television stations (as opposed to networks) is referred to as spot television. In spot television, the advertising rates vary by time-of-day, by markets, and by stations, usually at a rate related to the market share of the station. When advertising in a number of these time periods, the sum of the rating points is referred to as the gross rating points (GRP). Advertising rates are often expressed in terms of dollars per 100 Household GRPs for a 30-second spot. It is not unusual to spend several thousand dollars for a 30-second prime time spot on a station with a large market share in one of the better market areas. Specific advertising rates for local TV stations are available from **Standard Rate and Data Service**.

RESOURCES

Listed here you will find directories of print and broadcast media that can be used to find addresses of newspapers and radio and TV stations in your State. Then there is a list of references used in preparing this handbook. You may find them helpful in preparing publicity or finding more information on underground storage tanks.

Print Media Directories

Ayer Directory of Publications lists daily, weekly, biweekly, and triweekly newspapers and magazines published at least quarterly in North America. Addresses and other information are included and editors are listed for the larger publications. (Ayer Press, One Bala Avenue, Bala Cynwyd, PA 19004.)

Editor and Publisher International Yearbook lists daily newspapers in each State. Listings are alphabetical by city with counties identified also. Editors' names, addresses, and phone numbers are included. (Editor & Publisher Co., Inc., 575 Lexington Avenue, New York, NY 10022.)

Broadcast Media Directories

Broadcasting Yearbook lists nearly all radio and television stations in the United States. Other useful information includes addresses, key personnel, and type of programming for radio stations. (Broadcasting Publications, 1735 DeSales Street, NW, Washington, D.C. 20036.)

Television Factbook lists all television outlets in the United States and **Radio Factbook** lists radio stations. (Washington Television Digest, 1836 Jefferson Place, NW, Washington, D.C. 20036.)

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New England Interstate Water Pollution Control Commission. 1985. **Here lies the problem**. . . . Boston, Mass.

State of California Water Resources Control Board. 1984. **If you store hazardous substances or wastes under ground**. Sacramento, Calif.

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This appendix includes examples of some publicity tools that can be adapted for use in your State. A fact sheet, journal article, speech, and brochure are included.

FACT SHEET

The two-page fact sheet shown here was developed by EPA; it is designed to be folded like a brochure. You should be able to adapt this for your own use by adding details about your State implementation program.

JOURNAL ARTICLE

The article shown here was prepared as an example. If you decide to send articles to magazines, newsletters, or journals in your State, you could adapt this article to make it more specific to the type of publication you are writing for. It would also be desirable to include some pictures relevant to your State.

SPEECH

This appendix includes an example of a speech on notification, along with an outline. Some example word texts for slides or overhead transparencies that might be used are also included. Other slides, such as scenes of the environment that can be damaged or leaking tanks being removed from the ground in your State,

would also be helpful.

This example speech was written for an audience that may have very little knowledge of environmental issues, environmental regulations, or the specific roles of EPA or the responsible State agency. For example, audiences could be members of a trade association, local elected public officials, chambers of commerce, civic organizations, or farmers' organizations.

The speech included here is "generic" in the information presented. It will be necessary for you to add details about the specific program in your State. Handouts such as brochures, fact sheets, or copies of the notification form will help the audience understand the program.

The example speech included here will take approximately 20 minutes to deliver if adequate State program information is added.

BROCHURE

The brochure included as an example was developed by the New England Interstate Water Pollution Control Commission, which received an EPA grant to perform the work. This brochure illustrates an 8½ by 14-inch folded format, which can easily be mailed or handed out at meetings. The information presented is general, not specific to notification.