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Agency

Solid Waste And
Emergency Response
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EPA

National Priorities List Sites:

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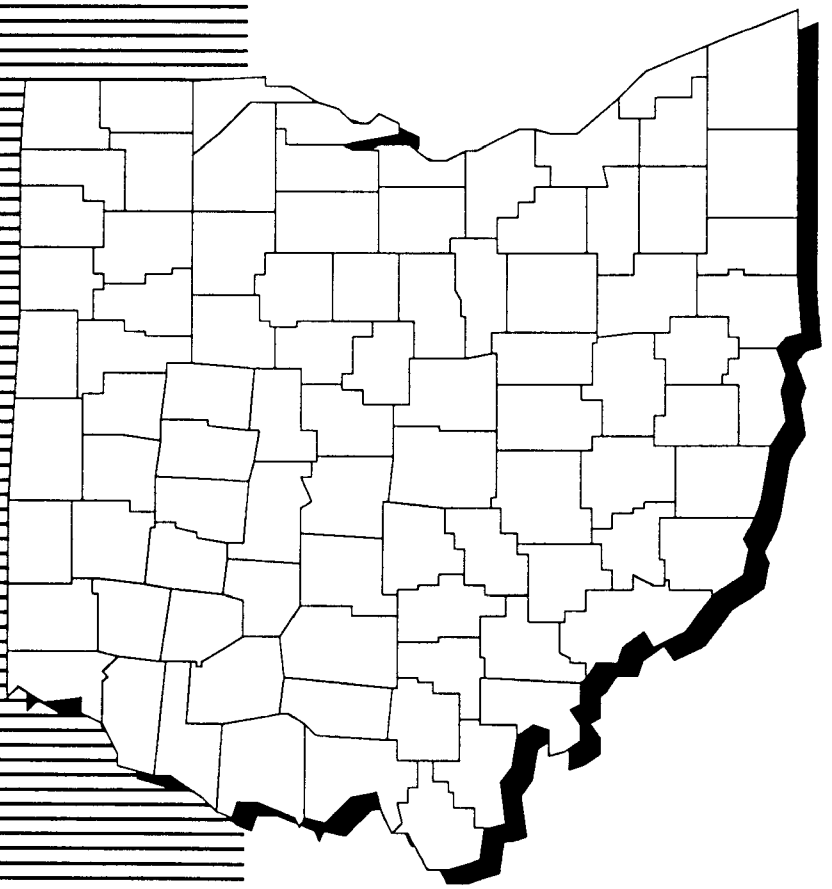

1991

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NATIONAL PRIORITIES LIST SITES:
Ohio

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Emergency & Remedial Response
Office of Program Management
Washington, DC 20460

If you wish to purchase copies of any additional State volumes contact:

National Technical Information Service (NTIS)
U.S. Department of Commerce
5285 Port Royal Road
Springfield, VA 22161
(703) 487-4650

The National Overview volume, **Superfund: Focusing on the Nation at Large (1991),** may be ordered as PB92-963253.

The complete set of the overview documents, plus the 49 state reports may be ordered as PB92-963253.

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A Brief Overview

WHY THE SUPERFUND PROGRAM?

As the 1970s came to a close, a series of headline stories gave Americans a look at the dangers of dumping industrial and urban wastes on the land. First there was New York's Love Canal. Hazardous waste buried there over a 25-year period contaminated streams and soil, and endangered the health of nearby residents. The result: evacuation of several hundred people. Then the leaking barrels at the Valley of the Drums in Kentucky attracted public attention, as did the dioxin-tainted land and water in Times Beach, Missouri.

In all these cases, human health and the environment were threatened, lives were disrupted, and property values were reduced. It became increasingly clear that there were large numbers of serious hazardous waste problems that were falling through the cracks of existing environmental laws. The magnitude of these emerging problems moved Congress to enact the Comprehensive Environmental Response, Compensation, and Liability Act in 1980. CERCLA — commonly known as Superfund — was the first Federal law established to deal with the dangers posed by the Nation's hazardous waste sites.

After Discovery, the Problem Intensified

Few realized the size of the problem until the Environmental Protection Agency (EPA) began the process of site discovery and site evaluation. Not hundreds, but thousands of potential hazardous waste sites existed, and they presented the Nation with some of the most complex pollution problems it had ever faced.

Since the Superfund program began, hazardous waste has surfaced as a major environmental concern in every part of the United States. It wasn't just the land that was contaminated by past disposal practices. Chemicals in the soil were spreading into the groundwater (a source of drinking water for many) and into streams, lakes, bays, and wetlands. Toxic vapors contaminated the air at some sites, while improperly disposed or stored wastes threatened the health of the surrounding community and the environment at others.

The EPA Identified More than 1,200 Serious Sites

The EPA has identified 1,245 hazardous waste sites as the most serious in the Nation. These sites comprise the National Priorities List; sites targeted for cleanup under Super-fund. But site discoveries continue, and the EPA estimates that, while some will be deleted after lengthy cleanups, this list, commonly called the NPL, will continue to grow by approximately 50 to 100 sites per year, potentially reaching 2,100 sites by the year 2000.

THE NATIONAL CLEANUP EFFORT IS MUCH MORE THAN THE NPL

From the beginning of the program, Congress recognized that the Federal government could

not and should not address all environmental problems stemming from past disposal practices. Therefore, the EPA was directed to set priorities and establish a list of sites to target. Sites on the NPL (1,245) thus are a relatively small subset of a larger inventory of potential hazardous waste sites, but they do comprise the most complex and compelling cases. The EPA has logged more than 35,000 sites on its national inventory of potentially hazardous waste sites and assesses each site within one year of being logged.

THE EPA IS MAKING PROGRESS ON SITE CLEANUP

The goal of the Superfund program is to tackle immediate dangers first and then move through the progressive steps necessary to eliminate any long-term risks to public health and the environment.

Superfund responds immediately to sites posing imminent threats to human health and the environment at both NPL sites and sites not on the NPL. The purpose is to stabilize, prevent, or temper the effects of a release of hazardous substances, or the threat of one, into the environment. These might include tire fires or transportation accidents involving the spill of hazardous chemicals. Because they reduce the threat a site poses to human health and the environment, immediate cleanup actions are an integral part of the Superfund program.

Immediate response to imminent threats is one of Superfund's most noted achievements. Where imminent threats to the public or environment were evident, the EPA has initiated or completed emergency actions that attacked the most serious threats of toxic exposure in more than 2,700 cases.

The ultimate goal for a hazardous waste site on the NPL is a permanent solution to an environmental problem that presents a serious threat to the public or the environment. This often requires a long-term effort. The EPA has aggressively accelerated its efforts to perform these long-term cleanups of NPL sites. More cleanups were started in 1987, when the Superfund law was amended, than in any previous year. By 1991, construction had started at more than four times as many sites as in 1986! Of the sites currently on the NPL, more than 500 — nearly half — have had construction cleanup activity. In addition, more than 400 more sites presently are in the investigation stage to determine the extent of site contamination and to identify appropriate cleanup remedies. Many other sites with cleanup remedies selected are poised for the start of cleanup construction activity. In measuring success by "progress through the cleanup pipeline," the EPA clearly is gaining momentum.

THE EPA MAKES SURE CLEANUP WORKS

The EPA has gained enough experience in cleanup construction to understand that environmental protection does not end when the remedy is in place. Many complex technologies — like those designed to clean up groundwater — must operate for many years in order to accomplish their objectives.

The EPA's hazardous waste site managers are committed to proper operation and maintenance of every remedy constructed. No matter who has been delegated responsibility for monitoring the cleanup work, the EPA will assure that the remedy is carefully followed and that it continues to do its job.

Likewise, the EPA does not abandon a site even after the cleanup work is done. Every five years, the Agency reviews each site where residues from hazardous waste cleanup still remain to ensure that public and environmental

health are being safeguarded. The EPA will correct any deficiencies discovered and will report to the public annually on all five-year reviews conducted that year.

CITIZENS HELP SHAPE DECISIONS

Superfund activities also depend upon local citizen participation. The EPA's job is to analyze the hazards and to deploy the experts, but the Agency needs citizen input as it makes choices for affected communities.

Because the people in a community where a Superfund site is located will be those most directly affected by hazardous waste problems and cleanup processes, the EPA encourages citizens to get involved in cleanup decisions. Public involvement and comment does influence EPA cleanup plans by providing valuable information about site conditions, community concerns, and preferences.

The State and U.S. Territories volumes and the companion National overview volume provide general Superfund background information and descriptions of activities at each NPL site. These volumes clearly describe what the problems are, what the EPA and others participating in site cleanups are doing, and how we, as a Nation, can move ahead in solving these serious problems.

USING THE STATE AND NATIONAL VOLUMES TOGETHER

To understand the big picture on hazardous waste cleanup, citizens need to hear about both environmental progress across the country and the cleanup accomplishments closer to home. Citizens also should understand the challenges involved in hazardous waste cleanup and the decisions we must make, as a Nation, in finding the best solutions.

The National overview, *Superfund: Focusing on the Nation at Large (1991),* contains important information to help you understand the magnitude and challenges facing the Superfund program, as well as an overview of the National cleanup effort. The sections describe the nature of the hazardous waste problem nationwide, threats and contaminants at NPL sites and their potential effects on human health and the environment, vital roles of the various participants in the cleanup process, the Superfund program's successes in cleaning up the Nation's serious hazardous waste sites, and the current status of the NPL. If you did not receive this overview volume, ordering information is provided in the front of this book.

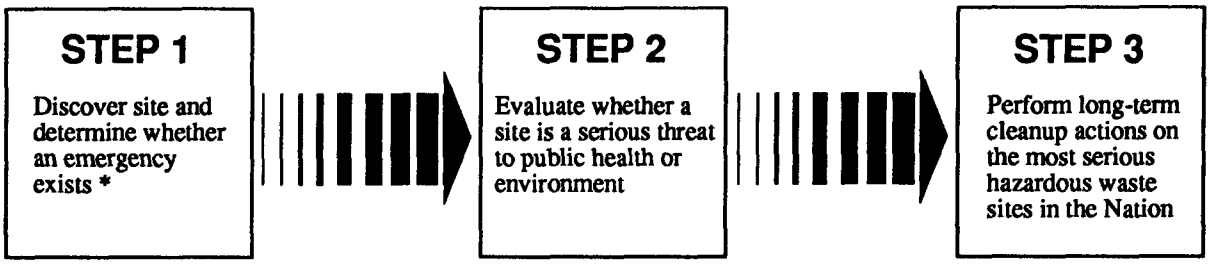
This volume compiles site summary fact sheets on each State or Territorial site being cleaned up under the Superfund program. These sites represent the most serious hazardous waste problems in the Nation and require the most complicated and costly site solutions yet encountered. Each book gives a "snapshot" of the conditions and cleanup progress that has been made at each NPL site. Information presented for each site is current as of April 1991. Conditions change as our cleanup efforts continue, so these site summaries will be updated annually to include information on new progress being made.

To help you understand the cleanup accomplishments made at these sites, this volume includes a description of the process for site discovery, threat evaluation, and long-term cleanup of Superfund sites. This description, *How Does the Program Work to Clean Up Sites?,* will serve as a reference point from which to review the cleanup status at specific sites. A glossary defining key terms as they apply to hazardous waste management and site cleanup is included as Appendix A in the back of this book.

How Does the Program Work to Clean Up Sites?

The diverse problems posed by hazardous waste sites have provided the EPA with the challenge to establish a consistent approach for evaluating and cleaning up the Nation's most serious sites. To do this, the EPA has had to step beyond its traditional role as a regulatory agency to develop processes and guidelines for each step in these technically complex site cleanups. The EPA has established procedures to coordinate the efforts of its Washington, D.C. Headquarters program offices and its front-line staff in ten Regional Offices, with the State and local governments, contractors, and private parties who are participating in site cleanup. An important part of the process is that any time during cleanup, work can be led by the EPA or the State or, under their monitoring, by private parties who are potentially responsible for site contamination.

THREE-STEP SUPERFUND PROCESS



** Emergency actions are performed whenever needed in this three-step process.*

The process for discovery of the site, evaluation of threat, and the long-term cleanup of Superfund sites is summarized in the following pages. The phases of each of these steps are highlighted within the description. The flow diagram above provides a summary of the three-step process.

Although this book provides a current "snapshot" of site progress made only by emergency actions and long-term cleanup actions at Superfund sites, it is important to understand the discovery and evaluation process that leads to identifying and cleaning up these most serious uncontrolled or abandoned hazardous

waste sites in the Nation. The discovery and evaluation process is the starting point for this summary description of Superfund involvement at hazardous waste sites.

STEP 1: SITE DISCOVERY AND EMERGENCY EVALUATION

How does the EPA learn about potential hazardous waste sites?

Site discovery occurs in a number of ways. Information comes from concerned citizens. People may notice an odd taste or foul odor in their drinking water or see half-buried leaking barrels; a hunter may come across a field where waste was dumped illegally. There may be an explosion or fire, which alerts the State or local authorities to a problem. Routine investigations by State and local governments and required reporting and inspection of facilities that generate, treat, store, or dispose of hazardous waste also help keep the EPA informed about actual or potential threats of hazardous substance releases. All reported sites or spills are recorded in the Superfund inventory (CERCLIS) for further investigation to determine whether they will require cleanup.

What happens if there is an imminent danger?

As soon as a potential hazardous waste site is reported, the EPA determines whether there is an emergency requiring an immediate cleanup action. If there is, they act as quickly as possible to remove or stabilize the imminent threat. These short-term emergency actions range from building a fence around the contaminated area to keep people away, or temporarily relocating residents until the danger is addressed, to providing bottled water to residents while their local drinking water supply is being cleaned up or physically removing wastes for safe disposal.

However, emergency actions can happen at any time an imminent threat or emergency warrants them. For example, if leaking barrels are found when cleanup crews start digging in the ground or if samples of contaminated soils or air show that there may be a threat of fire or explosion, an immediate action is taken.

STEP 2: SITE THREAT EVALUATION

If there isn't an imminent danger, how does the EPA determine what, if any, cleanup actions should be taken?

Even after any imminent dangers are taken care of, in most cases, contamination may remain at the site. For example, residents may have been supplied with bottled water to take care of their immediate problem of contaminated well water, but now it's time to determine what is contaminating the drinking water supply and the best way to clean it up. The EPA may determine that there is no imminent danger from a site, so any long-term threats need to be evaluated. In either case, a more comprehensive investigation is needed to determine if a site poses a serious, but not imminent, danger and whether it requires a long-term cleanup action.

Once a site is discovered and any needed emergency actions are taken, the EPA or the State collects all available background information not only from their own files, but also from local records and U.S. Geological Survey maps. This information is used to identify the site and to perform a preliminary assessment of its potential hazards. This is a quick review of readily available information to answer the questions:

- Are hazardous substances likely to be present?

- How are they contained?
- How might contaminants spread?
- How close is the nearest well, home, or natural resource area such as a wetland or animal sanctuary?
- What may be harmed — the land, water, air, people, plants, or animals?

Some sites do not require further action because the preliminary assessment shows that they do not threaten public health or the environment. But even in these cases, the sites remain listed in the Superfund inventory for record-keeping purposes and future reference. Currently, there are more than 35,000 sites maintained in this inventory.

If the preliminary assessment shows a serious threat may exist, what's the next step?

Inspectors go to the site to collect additional information to evaluate its hazard potential. During this *site inspection*, they look for evidence of hazardous waste, such as leaking drums and dead or discolored vegetation. They may take some samples of soil, well water, river water, and air. Inspectors analyze the ways hazardous materials could be polluting the environment, such as runoff into nearby streams. They also check to see if people (especially children) have access to the site.

How does the EPA use the results of the site inspection?

Information collected during the site inspection is used to identify the sites posing the most serious threats to human health and the environment. This way, the EPA can meet the requirement that Congress gave them to use Superfund monies only on the worst hazardous waste sites in the Nation.

To identify the most serious sites, the EPA developed the Hazard Ranking System (HRS). The HRS is the scoring system the EPA uses to assess the relative threat from a release or a potential release of hazardous substances from a site to surrounding groundwater, surface water, air, and soil. A site score is based on the likelihood that a hazardous substance will be released from the site, the toxicity and amount of hazardous substances at the site, and the people and sensitive environments potentially affected by contamination at the site.

Only sites with high enough health and environmental risk scores are proposed to be added to the NPL. That's why 1,245 sites are on the NPL, but there are more than 35,000 sites in the Superfund inventory. Only NPL sites can have a long-term cleanup paid for from Superfund, the national hazardous waste trust fund. Superfund can, and does, pay for emergency actions performed at any site, whether or not it's on the NPL.

Why are sites proposed to the NPL?

Sites proposed to the NPL have been evaluated through the scoring process as the most serious problems among uncontrolled or abandoned hazardous waste sites in the U.S. In addition, a site will be proposed to the NPL if the Agency for Toxic Substances and Disease Registry issues a health advisory recommending that people be moved away from the site. The NPL is updated at least once a year, and it's only after public comments are considered that these proposed worst sites officially are added to the list.

Listing on the NPL does not set the order in which sites will be cleaned up. The order is influenced by the relative priority of the site's health and environmental threats compared to other sites, and such factors as State priorities, engineering capabilities, and available tech-

nologies. Many States also have their own list of sites that require cleanup; these often contain sites that are not on the NPL and are scheduled to be cleaned up with State money. And, it should be noted again that any emergency action needed at a site can be performed by the Superfund, whether or not a site is on the NPL.

A detailed description of the current progress in cleaning up NPL sites is found in the section of the 1991 National overview volume entitled *Cleanup Successes: Measuring Progress.*

How do people find out whether the EPA considers a site a national priority for cleanup under the Superfund Program?

All NPL sites, where Superfund is responsible for cleanup, are described in the State and Territorial volumes. The public also can find out whether other sites, not on the NPL, are being addressed by the Superfund program by calling their Regional EPA office or the Superfund Hotline at the numbers listed in this book.

STEP 3: LONG-TERM CLEANUP ACTIONS

After a site is added to the NPL, what are the steps to cleanup?

The ultimate goal for a hazardous waste site on the NPL is a permanent, long-term cleanup. Since every site presents a unique set of challenges, there is no single all-purpose solution. A five-phase "remedial response" process is used to develop consistent and workable solutions to hazardous waste problems across the Nation:

1. *Remedial Investigation*: investigate in detail the extent of the site contamination
2. *Feasibility Study*: study the range of possible cleanup remedies
3. *Record of Decision or ROD*: decide which remedy to use
4. *Remedial Design*: plan the remedy
5. *Remedial Action*: carry out the remedy

This remedial response process is a long-term effort to provide a permanent solution to an environmental problem that presents a serious threat to the public or environment.

The first two phases of a long-term cleanup are a combined *remedial investigation and feasibility study* (RI/FS) that determine the nature and extent of contamination at the site and identify and evaluate cleanup alternatives. These studies may be conducted by the EPA or the State or, under their monitoring, by private parties.

Like the initial site inspection described earlier, a remedial investigation involves an examination of site data in order to better define the problem. However, the remedial investigation is much more detailed and comprehensive than the initial site inspection.

A remedial investigation can best be described as a carefully designed field study. It includes extensive sampling and laboratory analyses to generate more precise data on the types and quantities of wastes present at the site, the type of soil and water drainage patterns, and specific human health and environmental risks.

The result of the remedial investigation is information that allows the EPA to select the cleanup strategy that is best suited to a particular site or to determine that no cleanup is needed.

Placing a site on the NPL does not necessarily mean that cleanup is needed. It is possible for

a site to receive an HRS score high enough to be added to the NPL, but not ultimately require cleanup actions. Keep in mind that the purpose of the scoring process is to provide a preliminary and conservative assessment of *potential* risk. During subsequent site investigations, the EPA may find either that there is no real threat or that the site does not pose significant human health or environmental risks.

How are cleanup alternatives identified and evaluated?

The EPA or the State or, under their monitoring, private parties identify and analyze specific site cleanup needs based on the extensive information collected during the remedial investigation. This analysis of cleanup alternatives is called a *feasibility study*.

Since cleanup actions must be tailored exactly to the needs of each individual site, more than one possible cleanup alternative is always considered. After making sure that all potential cleanup remedies fully protect human health and the environment and comply with Federal and State laws, the advantages and disadvantages of each cleanup alternative are compared carefully. These comparisons are made to determine their effectiveness in the short and long term, their use of permanent treatment solutions, and their technical feasibility and cost.

To the maximum extent practicable, the remedy must be a permanent solution and must use treatment technologies to destroy principal site contaminants. Remedies such as containing the waste on site or removing the source of the problem (like leaking barrels) often are considered effective. Often, special pilot studies are conducted to determine the effectiveness and feasibility of using a particular technology to clean up a site. Therefore, the combined remedial investigation and feasibility study can take between 10 and 30 months to complete, depending on the size and complexity of the problem.

Does the public have a say in the final cleanup decision?

Yes. The Superfund law requires that the public be given the opportunity to comment on the proposed cleanup plan. Their concerns are considered carefully before a final decision is made.

The results of the remedial investigation and feasibility study, which also point out the recommended cleanup choice, are published in a report for public review and comment. The EPA or the State encourages the public to review the information and take an active role in the final cleanup decision. Fact sheets and announcements in local papers let the community know where they can get copies of the study and other reference documents concerning the site. Local information repositories, such as libraries or other public buildings, are established in cities and towns near each NPL site to ensure that the public has an opportunity to review all relevant information and the proposed cleanup plans. Locations of information repositories for each NPL site described in this volume are given in Appendix B.

The public has a minimum of 30 days to comment on the proposed cleanup plan after it is published. These comments can be written or given verbally at public meetings that the EPA or the State are required to hold. Neither the EPA nor the State can select the final cleanup remedy without evaluating and providing written answers to specific community comments and concerns. This "responsiveness summary" is part of the EPA's write-up of the final remedy decision, called the Record of Decision, or ROD.

The ROD is a public document that explains the cleanup remedy chosen and the reason it

was selected. Since sites frequently are large and must be cleaned up in stages, a ROD may be necessary for each contaminated resource or area of the site. This may be necessary when contaminants have spread into the soil, water, and air and affect such sensitive areas as wetlands, or when the site is large and cleaned up in stages. This often means that a number of remedies, using different cleanup technologies, are needed to clean up a single site.

If every cleanup action needs to be tailored to a site, does the design ofthe remedy need to be tailored, too?

Yes. Before a specific cleanup action is carried out, it must be designed in detail to meet specific site needs. This stage of the cleanup is called the *remedial design.* The design phase provides the details on how the selected remedy will be engineered and constructed.

Projects to clean up a hazardous waste site may appear to be like any other major construction project but, in fact, the likely presence of combinations of dangerous chemicals demands special construction planning and procedures. Therefore, the design of the remedy can take anywhere from six months to two years to complete. This blueprint for site cleanup includes not only the details on every aspect of the construction work, but a description of the types of hazardous wastes expected at the site, special plans for environmental protection, worker safety, regulatory compliance, and equipment decontamination.

Once the design is completed, how long does it take to actually clean up the site, and how much does it cost?

The time and cost for performing the site cleanup, called the *remedial action,* are as varied as the remedies themselves. In a few cases, the only action needed may be to remove drums of hazardous waste and to decontaminate them, an action that takes limited time and money. In most cases, however, a remedial action may involve different and expensive cleanup measures that can take a long time.

For example, cleaning polluted groundwater or dredging contaminated river bottoms can take several years of complex engineering work before contamination is reduced to safe levels. Sometimes the selected cleanup remedy described in the ROD may need to be modified because of new contaminant information discovered or difficulties that were faced during the early cleanup activities. Taking into account these differences, each remedial cleanup action takes an average of 18 months to complete and ultimately costs an average of $26 million to complete all necessary cleanup actions at a site .

Once the cleanup action is completed, is the site automatically "deleted" from the NPL?

No. The deletion of a site from the NPL is anything but automatic. For example, cleanup of contaminated groundwater may take up to 20 years or longer. Also, in some cases, *long-term monitoring* of the remedy is required to ensure that it is effective. After construction of certain remedies, operation and maintenance (e.g., maintenance of ground cover, groundwater monitoring, etc.), or continued pumping and treating of groundwater may be required to ensure that the remedy continues to prevent future health hazards or environmental damage and ultimately meets the cleanup goals specified in the ROD. Sites in this final monitoring or operational stage of the cleanup process are designated as "construction complete."

It's not until a site cleanup meets all the goals and monitoring requirements of the selected

remedy that the EPA can officially propose the site for *deletion* from the NPL, and it's not until public comments are taken into consideration that a site actually can be deleted from the NPL. All sites deleted from the NPL and sites with completed construction are included in the progress report found later in this book.

Can a site be taken off the NPL if no cleanup has taken place?

Yes. But only if further site investigation reveals that there are no threats present at the site and that cleanup activities are not necessary. In these cases, the EPA will select a "no action" remedy and may move to delete the site when monitoring confirms that the site does not pose a threat to human health or the environment.

In other cases, sites may be "removed" from the NPL if new information concerning site cleanup or threats show that the site does not warrant Superfund activities.

A site may be removed if a revised HRS scoring, based on updated information, results in a score below the minimum for NPL sites. A site also may be removed from the NPL by transferring it to other appropriate Federal cleanup authorities, such as RCRA, for further cleanup actions.

Removing sites for technical reasons or transferring sites to other cleanup programs preserves Superfund monies for the Nation's most pressing hazardous waste problems where no other cleanup authority is applicable.

Can the EPA make parties responsible for the contamination pay?

Yes. Based on the belief that "the polluters should pay," after a site is placed on the NPL, the EPA makes a thorough effort to identify and find those responsible for causing contamination problems at a site. Although the EPA is willing to negotiate with these private parties and encourages voluntary cleanup, it has the authority under the Superfund law to legally force those potentially responsible for site hazards to take specific cleanup actions. All work performed by these parties is closely guided and monitored by the EPA and must meet the same standards required for actions financed through the Superfund.

Because these enforcement actions can be lengthy, the EPA may decide to use Superfund monies to make sure a site is cleaned up without unnecessary delay. For example, if a site presents an imminent threat to public health and the environment or if conditions at a site may worsen, it could be necessary to start the cleanup right away. Those responsible for causing site contamination are liable under the law (CERCLA) for repaying the money the EPA spends in cleaning up the site.

Whenever possible, the EPA and the Department of Justice use their legal enforcement authorities to require responsible parties to pay for site cleanups, thereby preserving Superfund resources for emergency actions and for sites where no responsible parties can be identified.

How to Use the State Book

The site fact sheets presented in this book are comprehensive summaries that cover a broad range of information. The fact sheets describe hazardous waste sites on the NPL and their locations, as well as the conditions leading to their listing ("Site Description"). The summaries list the types of contaminants that have been discovered and related threats to public and ecological health ("Threats and Contaminants"). "Cleanup Approach" presents an overview of the cleanup activities completed, underway, or planned. The fact sheets conclude with a brief synopsis of how much progress has been made in protecting public health and the environment. The summaries also pinpoint other actions, such as legal efforts to involve polluters responsible for site contamination and community concerns.

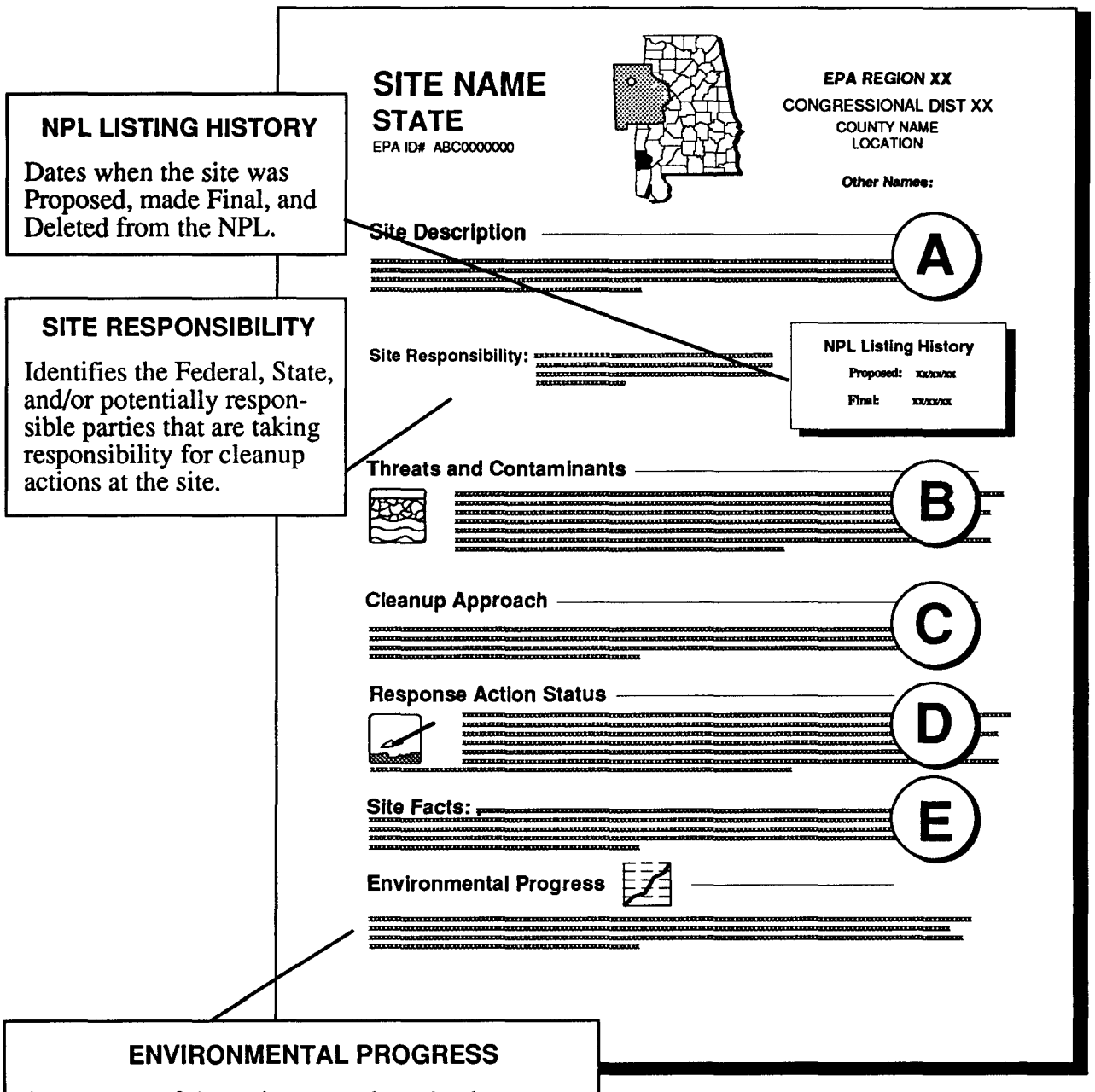
The fact sheets are arranged in alphabetical order by site name. Because site cleanup is a dynamic and gradual process, all site information is accurate as of the date shown on the bottom of each page. Progress always is being made at NPL sites, and the EPA periodically will update the site fact sheets to reflect recent actions and will publish updated State volumes. The following two pages show a generic fact sheet and briefly describe the information under each section.

HOW CAN YOU USE THIS STATE BOOK?

You can use this book to keep informed about the sites that concern you, particularly ones close to home. The EPA is committed to involving the public in the decision making process associated with hazardous waste cleanup. The Agency solicits input from area residents in communities affected by Superfund sites. Citizens are likely to be affected not only by hazardous site conditions, but also by the remedies that combat them. Site cleanups take many forms and can affect communities in different ways. Local traffic may be rerouted, residents may be relocated, temporary water supplies may be necessary.

Definitive information on a site can help citizens sift through alternatives and make decisions. To make good choices, you must know what the threats are and how the EPA intends to clean up the site. You must understand the cleanup alternatives being proposed for site cleanup and how residents may be affected by each one. You also need to have some idea of how your community intends to use the site in the future, and you need to know what the community can realistically expect once the cleanup is complete.

The EPA wants to develop cleanup methods that meet community needs, but the Agency only can take local concerns into account if it understands what they are. Information must travel both ways in order for cleanups to be effective and satisfactory. Please take this opportunity to learn more, become involved, and assure that hazardous waste cleanup at "your" site considers your community's concerns.



NPL LISTING HISTORY

Dates when the site was Proposed, made Final, and Deleted from the NPL.

SITE RESPONSIBILITY

Identifies the Federal, State, and/or potentially responsible parties that are taking responsibility for cleanup actions at the site.

ENVIRONMENTAL PROGRESS

A summary of the actions to reduce the threats to nearby residents and the surrounding environment; progress towards cleaning up the site and goals of the cleanup plan are given here.

A

SITE DESCRIPTION

This section describes the location and history of the site. It includes descriptions of the most recent activities and past actions at the site that have contributed to the contamination. Population estimates, land usages, and nearby resources give readers background on the local setting surrounding the site.

B

THREATS AND CONTAMINANTS

The major chemical categories of site contamination are noted, as well as which environmental resources are affected. Icons representing each of the affected resources (may include air, groundwater, surface water, soil, and contamination to environmentally sensitive areas) are included in the margins of this section. Potential threats to residents and the surrounding environments arising from the site contamination also are described.

C

CLEANUP APPROACH

This section contains a brief overview of how the site is being cleaned up.

D

RESPONSE ACTION STATUS

Specific actions that have been accomplished or will be undertaken to clean up the site are described here. Cleanup activities at NPL sites are divided into separate phases, depending on the complexity and required actions at the site. Two major types of cleanup activities often are described: initial, immediate, or emergency actions to quickly remove or reduce imminent threats to the community and surrounding areas; and long-term remedial phases directed at final cleanup at the site. Each stage of the cleanup strategy is presented in this section of the summary. Icons representing the stage of the cleanup process (initial actions, site investigations, EPA selection of the cleanup remedy, engineering design phase, cleanup activities underway, and completed cleanup) are located in the margin next to each activity description.

E

SITE FACTS

Additional information on activities and events at the site are included in this section. Often details on legal or administrative actions taken by the EPA to achieve site cleanup or other facts pertaining to community involvement with the site cleanup process are reported here.

THE VOLUME

The "icons," or symbols, accompanying the text allow the reader to see at a glance which environmental resources are affected and the status of cleanup activities at the site.

Icons in the Threats and Contaminants Section

Contaminated *Groundwater* resources in the Contaminated *Groundwater* in the vicinity or underlying the site. (Groundwater is often used as a drinking water source.)

Contaminated *Surface Water and Sediments* on or near the site. (These include lakes, ponds, streams, and rivers.)

Contaminated *Air* in the vicinity of the site. (Air pollution usually is periodic and involves contaminated dust particles or hazardous gas emissions.)

Contaminated *Soil and Sludges* on or near the site. (This contamination category may include bulk or other surface hazardous wastes found on the site.)

Threatened or contaminated *Environmentally Sensitive Areas* in the vicinity of the site. (Examples include wetlands and coastal areas or critical habitats.)

Icons in the Response Action Status Section

Initial Actions have been taken or are underway to eliminate immediate threats at the site.

Site Studies at the site to determine the nature and extent of contamination are planned or underway.

Remedy Selected indicates that site investigations have been concluded, and the EPA has selected a final cleanup remedy for the site or part of the site.

Remedy Design means that engineers are preparing specifications and drawings for the selected cleanup technologies.

Cleanup Ongoing indicates that the selected cleanup remedies for the contaminated site, or part of the site, currently are underway.

Cleanup Complete shows that all cleanup goals have been achieved for the contaminated site or part of the site.

Environmental Progress summarizes the activities taken to date to protect human health and to clean up site contamination.

The State of Ohio

Bordered by Lake Erie and Lake Michigan to the north, Ohio is located in EPA Region 5, which includes the central midwestern United States. The state covers 41,330 square miles and consists of rolling and lake plains extending southward and the Allegheny plateau in the east. Ranked 7th in U.S. populations, Ohio experienced a 0.5% increase in population between 1980 and 1990, according to the 1990 Census, and currently has approximately 10,847,000 residents. Principal state industries include manufacturing, trade, and services. Ohio's chief manufactured goods are transportation equipment, machinery, and primary and fabricated metal products.

How Many NPL Sites Are in the State of Ohio?

Proposed	0
Final	33
Deleted	0
	33

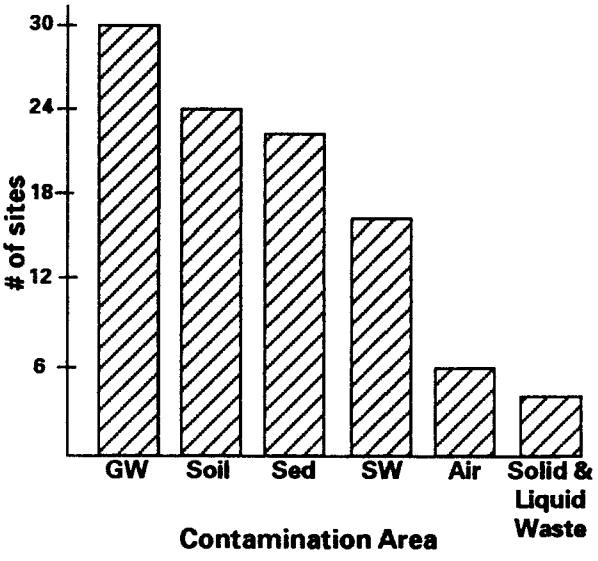
Where Are the NPL Sites Located?

Congressional Districts 13, 17	1 site
Congressional Districts 1, 3, 4, 7, 16	2 sites
Congressional District 8	4 sites
Congressional District 18	5 sites
Congressional Districts 10, 11	6 sites

What Type of Sites Are on the NPL in the State of Ohio?

# of sites	type of sites
10	Municipal & Industrial Landfills
4	Storage/Disposal Facilities
3	Chemical & Allied Products
3	Metal & Allied Products
3	Disposal Facilities
3	Federal Facilities
7	Other (Petroleum refining & related industries, recyclers, coke plant)

How Are Sites Contaminated and What Are the Principal* Chemicals?



Groundwater: Volatile organic compounds (VOCs), heavy metals (inorganics), radiation, plastics, and other inorganics.

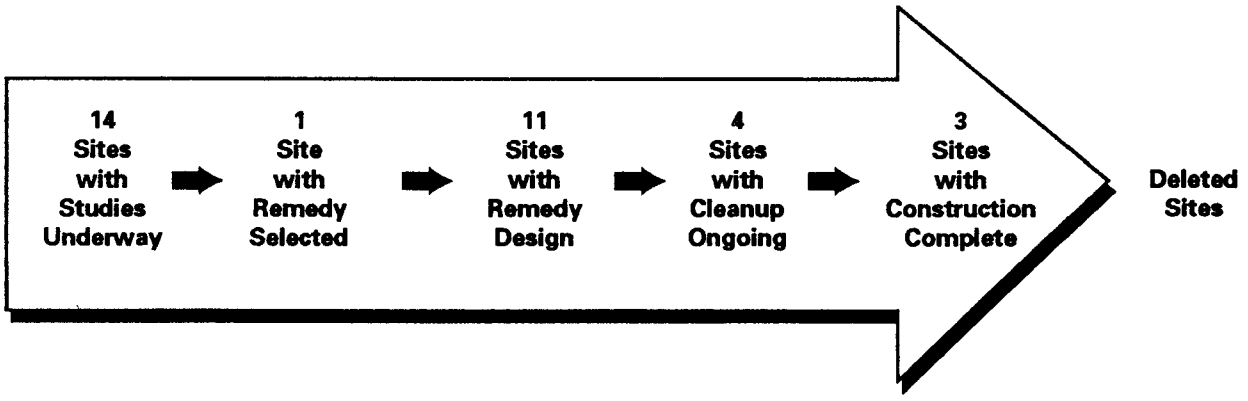
Soil, Solid and Liquid Waste: Volatile organic compounds (VOCs), heavy metals (inorganics), creosotes (organics), pesticides, polychlorinated biphenyls (PCBs), and petrochemicals.

Surface Water and Sediments: Volatile organic compounds (VOCs), heavy metals (inorganics), creosotes (organics), pesticides, and petrochemicals.

Air: Volatile organic compounds (VOCs), heavy metals (inorganics), radiation, plastics, and gases.

*Appear at 10% or more sites.

Where Are the Sites in the Superfund Cleanup Process?†



In addition to the activities described above, initial actions have been taken at 17 sites as interim cleanup measures.

†Cleanup status reflects phases of site activities rather than administrative accomplishments.

Progress To Date

The following Progress Report lists all sites currently on, or deleted from, the NPL and briefly summarizes the status of activities for each site at the time this report was prepared. The steps in the Superfund cleanup process are arrayed across the top of the chart, and each site's progress through these steps is represented by an arrow (⇨) indicating the current stage of cleanup.

Large and complex sites often are organized into several cleanup stages. For example, separate cleanup efforts may be required to address the source of the contamination, hazardous substances in the groundwater, and surface water pollution, or to clean up different areas of a large site. In such cases, the chart portrays cleanup progress at the site's *most advanced* stage, reflecting the status of site activities rather than administrative accomplishments.

- An arrow in the "Initial Response" category indicates that an emergency cleanup or initial action has been completed or currently is underway. Emergency or initial actions are taken as an interim measure to provide immediate relief from exposure to hazardous site conditions or to stabilize a site to prevent further contamination.

- A final arrow in the "Site Studies" category indicates that an investigation to determine the nature and extent of the contamination at the site currently is ongoing.

- A final arrow in the "Remedy Selection" category means that the EPA has selected the final cleanup strategy for the site. At the few sites where the EPA has determined that initial response actions have eliminated site contamination, or that any remaining contamination will be naturally dispersed without further cleanup activities, a "No Action" remedy is selected. In these cases, the arrows are discontinued at the "Remedy Selection" step and resume in the "Construction Complete" category.

- A final arrow at the "Remedial Design" stage indicates that engineers currently are designing the technical specifications for the selected cleanup remedies and technologies.

- A final arrow in the "Cleanup Ongoing" column means that final cleanup actions have been started at the site and currently are underway.

- A final arrow in the "Construction Complete" category is used only when all phases of the site cleanup plan have been performed, and the EPA has determined that no additional construction actions are required at the site. Some sites in this category currently may be undergoing long-term operation and maintenance or monitoring to ensure that the cleanup actions continue to protect human health and the environment.

- A check in the "Deleted" category indicates that the site cleanup has met all human health and environmental goals and that the EPA has deleted the site from the NPL.

Further information on the activities and progress at each site is given in the site "Fact Sheets" published in this volume.

Progress Toward Cleanup at NPL Sites in the State of Ohio

Page	Site Name	County	NPL	Date	Initial Response	Site Studies	Remedy Selected	Remedy Design	Cleanup Ongoing	Construction Complete	Deleted
25	ALLIED CHEMICAL & IRONTON COKE	LAWRENCE	Final	09/08/83	⇨	⇨	⇨	⇨			
27	ALSCO ANACONDA	TUSCARAWAS	Final	06/10/86		⇨	⇨	⇨			
29	ARCANUM IRON & METAL	DARKE	Final	09/08/83	⇨	⇨	⇨	⇨			
31	BIG D CAMPGROUND	ASHTABULA	Final	09/08/83	⇨	⇨	⇨	⇨			
33	BOWERS LANDFILL	PICKAWAY	Final	09/08/83		⇨	⇨	⇨			
35	BUCKEYE RECLAMATION	BELMONT	Final	09/08/83		⇨					
37	CHEM-DYNE	BUTLER	Final	09/08/83	⇨	⇨	⇨	⇨	⇨	⇨	
39	COSHOCTON LDFL	COSHOCTON	Final	09/08/83	⇨	⇨	⇨	⇨			
41	E. H. SCHILLING LANDFILL	LAWRENCE	Final	09/08/83		⇨	⇨	⇨			
43	FEED MATERIALS PRODUCTION CENTER	BUTLER	Final	11/24/89	⇨	⇨					
45	FIELDS BROOK	ASHTABULA	Final	09/08/83		⇨	⇨	⇨			
47	FULTZ LANDFILL	GUERNSEY	Final	09/08/83		⇨					
49	INDUSTRIAL EXCESS LANDFILL	STARK	Final	09/08/83	⇨	⇨	⇨	⇨	⇨		
51	LASKIN/POPLAR OIL CO.	ASHTABULA	Final	09/08/83	⇨	⇨	⇨	⇨	⇨		
55	MIAMI COUNTY INCINERATOR	MIAMI	Final	09/21/84	⇨	⇨	⇨	⇨			
57	MOUND PLANT (US DOE)	MONTGOMERY	Final	11/17/89		⇨					
59	NEASE CHEMICAL	COLUMBIANA	Final	09/08/83	⇨	⇨					
61	NEW LYME LANDFILL	ASHTABULA	Final	09/08/83		⇨	⇨	⇨	⇨		
63	OLD MILL	ASHTABULA	Final	09/08/83	⇨	⇨	⇨	⇨	⇨	⇨	
65	ORMET CORP	MONROE	Final	07/21/87		⇨					
67	POWELL ROAD LANDFILL	MONTGOMERY	Final	09/21/84		⇨					
69	PRISTINE, INC.	HAMILTON	Final	09/08/83	⇨	⇨	⇨	⇨			
71	REILLY TAR AND CHEMICAL CORP.	TUSCARAWAS	Final	08/30/90	⇨	⇨					

Page	Site Name	County	NPL	Date	Initial Response	Site Studies	Remedy Selected	Remedy Design	Cleanup Ongoing	Construction Complete	Deleted
73	REPUBLIC STEEL CORP. QUARRY	LORAIN	Final	06/12/86		⇨	⇨	⇨	⇨		
75	SANITARY LDFL COMPANY	MONTGOMERY	Final	06/10/86		⇨					
77	SKINNER LANDFILL	BUTLER	Final	09/08/83		⇨					
79	SOUTH POINT PLANT	LAWRENCE	Final	09/21/84		⇨					
81	SUMMIT NATIONAL	PORTAGE	Final	09/08/83	⇨	⇨	⇨				
83	TRW, INC. (MINERVA PLANT)	STARK	Final	03/31/89	⇨	⇨	⇨	⇨	⇨	⇨	
85	UNITED SCRAP LEAD COMPANY, INC.	MIAMI	Final	09/21/84	⇨	⇨	⇨	⇨			
87	VAN DALE JUNKYARD	WASHINGTON	Final	06/10/86		⇨					
89	WRIGHT-PATTERSON AIR FORCE BASE	GREENE	Final	10/04/89	⇨	⇨					
91	ZANESVILLE WELL FIELD	MUSKINGUM	Final	09/08/83		⇨					

Summary of Site Activities

EPA REGION 5

Who Do I Call with Questions?

The following pages describe each NPL site in Ohio, providing specific information on threats and contaminants, cleanup activities, and environmental progress. Should you have questions, please call the EPA's Region 5 Office in Chicago, Illinois or one of the other offices listed below:

EPA Region 5 Superfund Community Relations Office	(312) 353-2073
EPA Region 5 Superfund Office	(312) 886-7456
EPA Superfund Hotline	(800) 424-9346
EPA Headquarters Public Information Center	(202) 260-2080
Ohio Superfund Office	(312) 886-7241

ALLIED CHEMICAL & IRONTON COKE

OHIO

EPA ID# OHD043730217

EPA REGION 5
CONGRESSIONAL DIST. 10
Lawrence County
Ironton

Site Description

The 95-acre Allied Chemical & Ironton Coke site is bordered by the Ohio River and Ice Creek. It includes two industrial facilities that formerly used on-site lagoons to hold hazardous wastes. There are four major areas of concern on this site: the coke plant, the coke plant lagoons, the tar plant, and the Goldcamp disposal area. Manufacturing operations at the coke plant began in 1917. From 1920 to the late 1960s, wastewater and solid wastes generated in the coking process were discharged into the area east of the plant, which drained toward Ice Creek. In the early 1970s, a series of lagoons were constructed on site for treatment of plant process wastewater. The lagoons were constructed by building dikes with site materials, including soil and solid wastes. In 1982, the coke plant, including the lagoon system, was shut down. In 1945, the tar plant was constructed across from the coke plant. The purpose of the tar plant was to manufacture products from the tar produced in the coking process. The tar plant currently is operating. Some of the process wastes for the tar plant were disposed of in an adjacent sand and gravel pit called the Goldcamp disposal site, which has been owned by the Allied Chemical and Dye Company since 1955. In the late 1970s, the Goldcamp Disposal site was closed by removing standing water, filling, and capping with imported clay soil. Underlying the Goldcamp Disposal Area (GDA), contaminants have migrated downward through the aquifer to the surface of the underlying impermeable bedrock. The surface of the GDA also is a source of contamination, because many substances have oozed up through the existing cap. Approximately 14,000 people live in Ironton. Groundwater is the main source of municipal water for the city. The Ohio River and Ice Creek are used for recreational activities including fishing.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

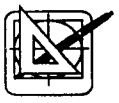
The groundwater, soil, and sediments are contaminated with volatile organic compounds (VOCs), phenols, polycyclic aromatic hydrocarbons (PAHs), inorganics including cyanide, and the heavy metal arsenic. Potential health threats include direct contact or accidental ingestion of these contaminants in the soil, sediments, or groundwater, which is used as a source of drinking water in the Village of Coal Grove, approximately 2,000 feet from the site.

Cleanup Approach

This site is being addressed in three stages: an initial action and two long-term remedial phases focusing on cleanup of the Goldcamp Disposal Area and cleanup of the Coke Plant/Lagoon area.

Response Action Status

Initial Action: The parties potentially responsible for site contamination are dismantling the coke plant located on the site in preparation for the site cleanup. Cleanup of the coke plant area will be completed under another phase as described below.



Goldcamp Disposal Area: Based on the results of the Goldcamp Disposal Area investigation, the EPA selected the following cleanup actions: (1) construction of a slurry wall around the disposal area; (2) installation of a cover made of several materials over the surface of the disposal area; (3) extraction and on-site treatment of groundwater from inside and outside the containment system; (4) provision of an alternate water supply for the Ironton Iron Company until groundwater cleanup levels are met; (5) imposition of deed restrictions to limit future uses of the property; and (6) preparation of a supplemental pre-design investigation. The pre-design investigation is scheduled to be completed in 1991, at which time the design of the remedies will begin.

Coke Plant/Lagoon Area: Based on the results of the Coke Plant/Lagoon Area investigation, the EPA selected the following cleanup actions: on-site incineration of approximately 122,000 cubic yards of lagoon waste materials; in-place bioremediation of approximately 457,000 cubic yards of lagoon waste material; bioremediation of approximately 40,000 cubic yards of soil on a prepared surface; and pumping and on-site treatment of groundwater. In addition, groundwater will be monitored downgradient of Ice Creek, and a contingency plan will be prepared; fencing, security, and deed restrictions will be put in place; and the effectiveness of in-situ bioremediation, with a contingency for development of an alternative cleanup action for Lagoons 1 through 4, will be evaluated. The parties potentially responsible for site contamination, under EPA monitoring, will begin designing the technologies to be used in the cleanup in 1991. Cleanup activities are scheduled to begin in late 1992.

Site Facts: The EPA issued a Unilateral Administrative Order in 1989 for partial cleanup of the site. The order calls for Allied-Chemical, Inc. and the AMCAST Industrial Corporation to design and conduct cleanup of the Goldcamp Disposal Area on the site.

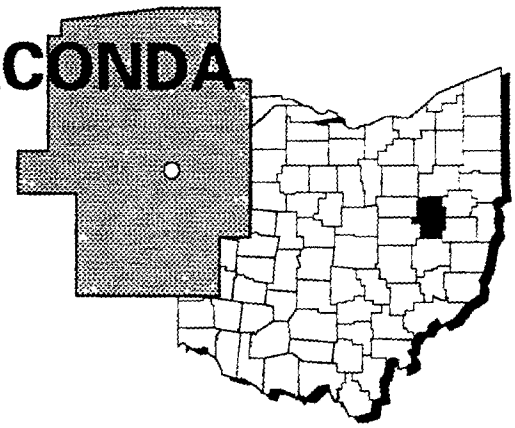
Environmental Progress

The dismantling of the coke plant and continuous site security, along with the earlier actions taken to close the disposal area, have greatly reduced the potential for exposure to hazardous substances at the Allied Chemical & Ironton Coke site while further cleanup activities are being planned.

ALSCO ANACONDA

OHIO

EPA ID# OHD057243610



EPA REGION 5

CONGRESSIONAL DIST. 18

Tuscarawas County

Gnadenhutten

Site Description

The 4 3/4-acre Alsco Anaconda site is owned by the ARCO Chemical Company, a division of Atlantic Richfield. From 1965 to 1978, the site was used for the disposal of wastewater and wastewater treatment sludge that were generated by the production of aluminum products. The sludge was disposed of in an unlined lagoon. From 1971 to 1978, the company disposed of the equivalent of approximately 18,000 drums of waste. The lagoon contains chromium and cyanide contaminants. A wooded low-lying area near the river, also referred to as a swamp, received the overflow from the lagoon. The remaining wastewater was discharged into the Tuscarawas River. Since 1978, sludge has been disposed of at an off-site facility. However, over 4,800 tons of sludge remain on the property and is spread across most of the site. Approximately 3,100 people live within 3 miles of the site. These individuals depend on city and private drinking water wells drawn from groundwater aquifers, as there are no alternative sources of drinking water. The site is located in the 100-year flood plain of the Tuscarawas River, which is used for various recreational activities.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 10/15/84

Final Date: 06/10/86

Threats and Contaminants

The groundwater and soil are contaminated with heavy metals including cyanide and chromium. The soil also is contaminated with polychlorinated biphenyls (PCBs). Possible health threats include accidentally ingesting or coming in direct contact with contaminated groundwater or soil. If a flood of the Tuscarawas River were to occur, substantial amounts of contaminants could be washed into the river.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on cleanup of the sludge and soil and cleanup of the groundwater and surface water.

Response Action Status

Sludge and Soil: In 1989, based on the results of the site investigation, the EPA selected the following methods for cleanup of contaminated sludge and soil: (1) highly contaminated swamp sludge, known as hot swamp waste, will be excavated, drummed, and hauled to a facility for incineration; (2) the remaining wastes from the swamp, the lagoon, and the sludge pit will be excavated and hauled to a licensed landfill or treatment facility, where they will be treated prior to disposal; and (3) the excavated settling basin and sludge pit will be filled with clean fill. A design study to implement the cleanup began in 1990, and actual site cleanup is scheduled to begin in late 1991.

Groundwater and Surface Water: The parties potentially responsible for site contamination have begun a supplemental study to determine the nature and extent of groundwater and surface water contamination, which is scheduled for completion in late 1991.

Site Facts: A 1987 agreement between the EPA, the Ohio EPA, and ARCO provides for an investigation to be completed by the company, under EPA monitoring. In 1989, the EPA issued Unilateral Administrative Orders to both Harvard Industries, and ARCO to clean up the source materials found on site.

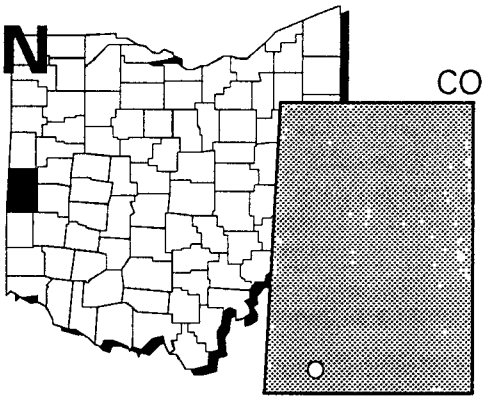
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Alsco Anaconda site while further studies are taking place and cleanup activities are being planned.

ARCANUM IRON & METAL

OHIO

EPA ID# OHD017506171



EPA REGION 5

CONGRESSIONAL DIST. 08

Darke County

Arcanum

Site Description

The 4 1/2-acre Arcanum Iron and Metal (AIM) site operated as a lead battery reprocessing facility from the early 1960s until 1982. During this operation, battery casings were split to extract lead cores for smelting. Battery acids generated from this operation were dumped in a large steel trough and allowed to drain to a low area. Reprocessing of the plastic and black rubber battery casings generated lead oxide sludge that collected on the ground and surface ponds on site. Past practices at the facility included burial of some materials in on-site pits. The State of Ohio investigated a fish kill in Sycamore Ditch and Painter Creek near the site in 1964. Testing of groundwater was not performed until the 1970s. The City of Arcanum's water supply is furnished by wells within 1 mile of the site, and private wells also are nearby.

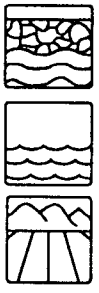
Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 12/30/82

Final Date: 09/08/83

Threats and Contaminants



Groundwater on the site contains lead. Lead, antimony, and arsenic have been detected in the sediments and soil. Potential risks may exist for individuals ingesting or coming in direct contact with contaminated groundwater or soils.

Cleanup Approach

This site is being addressed in two stages: an immediate action and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Action: To reduce public access to the contaminated site areas, the parties potentially responsible for the contamination constructed a fence around the entire site in 1984.

Entire Site: In 1986, the EPA determined the following actions would be necessary to clean up the site: (1) excavation of on-site contaminated soils and battery casings with off-site disposal in a federally approved landfill; (2) excavation and disposal of off-site soils exceeding human health standards in a federally approved facility; (3) improvement of site drainage; (4) demolition or cleaning of contaminated on-site facilities; (5) implementation of deed restrictions for land and aquifer use; (6) continuance of semi-annual groundwater monitoring; and (7) conducting treatability studies. The EPA intends to combine cleanup with the United Scrap Lead site, another NPL site located approximately 30 miles away that is similarly contaminated. Contaminated soils will be removed to the United Scrap Lead site for treatment and returned to the AIM site. Revisions to the initial proposed cleanup actions include placing a soil cover over the excavated areas and recovery of lead from contaminated soil. A study began in 1987 to address the appropriateness of potential contaminant recovery and cleanup methods as part of the remedy design. It is scheduled to be completed in 1993.

Site Facts: In 1979, the State entered into a Consent Decree with the owner to clean up the site, but the results were unsatisfactory. The owner ceased operation in 1982, having never fully complied with the provisions of the State Consent Decree.

Environmental Progress

Fencing of the entire site has reduced the potential for exposure to contaminated materials at the Arcanum Iron & Metal site while further studies are taking place and cleanup activities are being planned.

BIG D CAMPGROUND

OHIO

EPA ID# OHD980611735

EPA REGION 5

CONGRESSIONAL DIST. 11

Ashtabula County

1 1/2 miles northeast of Kingsville Township

Site Description

The 7 1/2-acre Big D Campground site consists of a former sand and gravel quarry that was used between 1964 and 1976 for the disposal of a variety of industrial wastes. The Olin Chemical Corporation estimates that 25,000 to 30,000 cubic yards of industrial bulk wastes, drums, and soil were disposed of at the site. Olin investigated possible contamination problems at the site in 1978. As part of the investigation, Olin installed three groundwater monitoring wells on the north side of Conneaut Creek and collected water samples from the wells. The results of these sampling efforts indicated the presence of volatile organic compounds (VOCs) in the groundwater. In 1982, Olin reported the findings of its investigation to the EPA. Subsequent groundwater sampling conducted by the EPA in 1982 confirmed the presence of VOCs in the groundwater. Approximately 3,900 people live within a 3-mile radius of the site. The distance from the site to the nearest residence is approximately 500 feet.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 12/30/82

Final Date: 09/08/83

Threats and Contaminants

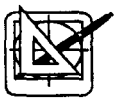
Groundwater and soil are contaminated with VOCs and heavy metals including barium, chromium, lead, and nickel. Surface water and sediments in Conneaut Creek are contaminated with low concentrations of VOCs and heavy metals. At present, area residents are not exposed to site-related contaminants located in the on-site groundwater. Most residents receive drinking water from the municipal water supply system, and private wells located near the site are not contaminated. In addition, potential exposure to contaminated soil is limited by the clay and vegetation covering the landfilled area. However, the EPA is concerned about the potential for future exposure. Existing private wells could become contaminated if the area of groundwater contamination believed to have originated from the site migrates farther northward.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: When erosion of the landfill soil cover exposed buried drums in 1983, Olin covered the surface of the landfill area with clay and took steps to control any further erosion of soil from the base of the slope. In addition, Olin installed a rainwater collection trench to remove rainfall runoff from the covered area and drilled 11 new groundwater monitoring wells on the site to expand its groundwater monitoring program.



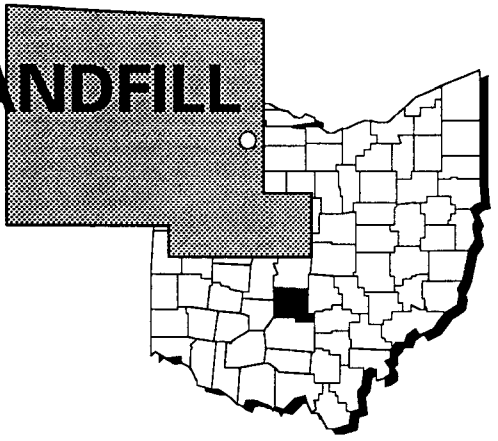
Entire Site: As a result of the investigation completed by the EPA in 1989, the remedy selected to address site contamination includes the following activities: (1) excavating drums and contaminated soils; (2) burning excavated materials in an incinerator; (3) filling the excavated area with soil and planting vegetation; (4) constructing a fence around the excavated area and incinerator; (5) installing two groundwater extraction trenches and 33 groundwater extractions wells near the site to withdraw contaminated groundwater; (6) treating contaminated groundwater by passing it through a carbon filter system to remove contaminants and discharge of treated water to Conneaut Creek; (7) deed restrictions; and (8) monitoring groundwater and surface water quality to assess the effectiveness of the cleanup. The parties potentially responsible for site contamination began developing a work plan to design the final remedies in 1990. The EPA installed additional monitoring wells to determine the extent of groundwater contamination migration. Excavation and incineration of landfill contaminants will be the first cleanup activity.

Site Facts: After negotiating with the State, one of the potentially responsible parties has completed a soil erosion control program.

Environmental Progress

The steps taken to control further erosion of contaminated soil from the Big D Campground site have reduced the potential of exposure to contaminants while activities leading to the final site cleanup are completed.

BOWERS LANDFILL
OHIO
EPA ID# OHD980509616



EPA REGION 5
CONGRESSIONAL DIST. 07
Pickaway County
25 miles south of Columbus

Other Names:
Island Road Landfill

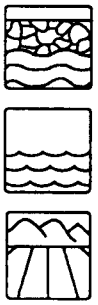
Site Description

The 12-acre Bowers Landfill site operated as a pit for gravel excavation operations beginning in 1958, but its owners subsequently converted it to a landfill, which at first accepted only domestic refuse. From 1958 to 1968, it accepted residential, grain elevator, and industrial wastes. Two local manufacturers of chemicals responded to a Congressional inquiry about the site and noted that they dumped approximately 7,500 tons of chemical waste at the landfill. Disposal practices frequently consisted of depositing the waste directly onto the ground and covering it with soil. Waste also was burned on site. Operations at the landfill ended in about 1968. In 1980, the EPA found that contaminants in the landfill were polluting nearby private wells with volatile organic compounds (VOCs). Approximately 60 people live within 1/2 mile of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants



Groundwater on site contains heavy metals including barium and manganese, VOCs, and phthalates. Sediments are contaminated with polychlorinated biphenyls (PCBs), petrochemicals, pesticides, VOCs, and lead. Contaminants in the soil include petrochemicals, lead, and PCBs. Off-site soils contain heavy metals including arsenic, as well as pesticides. Surface water is contaminated with VOCs, polycyclic aromatic hydrocarbons (PAHs), and heavy metals. There are several ways people could be exposed to contaminants from the landfill: people could drink or come in direct with contaminated groundwater, inhale contaminated soil or sediment particles, or eat small animals, birds, fish or plants that are contaminated with chemicals from the site. The area between the landfill and the Scioto River generally floods twice a year, which further contributes to the threat of contaminant releases.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: The EPA studied the nature and extent of contamination at the site from 1983 to 1989. The results of this study, along with a study by the parties potentially responsible for the site contamination, were used to prepare an analysis of the alternatives for addressing the threat the landfill poses to people and the environment. In 1989, the EPA recommended the following actions at the site to address the contamination problem: (1) removing and disposing of all surface debris in an approved landfill; (2) improving erosion control and drainage; (3) installing a natural clay cover over the landfill; (4) installing a topsoil layer over the clay cover; (5) protecting the cap from flood damage; (6) installing a limited number of new groundwater monitoring wells; (7) taking samples of the groundwater and analyzing them to determine any increases in the level of contaminants; and (8) installing a fence to prevent site entry. The EPA started to design these cleanup activities in 1989 and is scheduled to complete the specifications in 1991. Cleanup work is expected to begin in 1991, also.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Bowers Landfill site while cleanup activities are being designed.

BUCKEYE RECLAMATION
OHIO
EPA ID# OHD980509657

EPA REGION 5
CONGRESSIONAL DIST. 18
Belmont County
St. Clairsville

Other Names:
Buckeye Landfill
Belmont County Landfill

Site Description

The 50-acre Buckeye Reclamation site, a former disposal site for coal mine spoils, was licensed in 1971 by the Ohio Department of Health as a sanitary landfill. Between 1976 and 1979, the landfill also accepted industrial wastes, including sludges and liquids, without State approval. Industrial and asbestos wastes were dumped into a pond known as the Waste Pit. The slopes of the filled area are steep, and the mining wastes used for cover are eroding. Substantial amounts of leachate from the site have entered a stream adjacent to a private home. The site has polluted Little McMahon Creek, which may be used for drinking water and recreational purposes. The closest residence is 1/4 mile from the site. The population within a 2-mile radius of the site is approximately 100. There are private wells immediately downgradient from the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

Groundwater is contaminated with volatile organic compounds (VOCs) and heavy metals. Nearby King's Run and Little McMahon Creek have been polluted by acid mine drainage from the mine wastes and contaminants from waste disposal practices at the site. High levels of VOCs and heavy metals have been detected in the Waste Pit. Potential health risks may exist for individuals who accidentally ingest or come in direct contact with contaminated groundwater, surface water, soil, and leachate.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

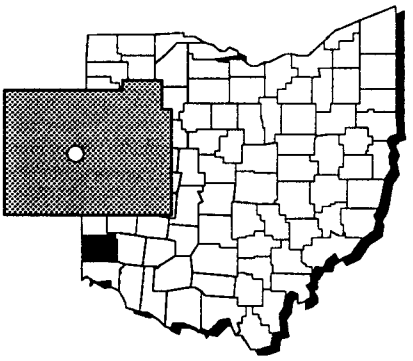
Entire Site: The parties potentially responsible for the contamination initiated an investigation in 1985 to determine the type and extent of contamination at the site and to identify alternative remedies for the cleanup. The investigation is scheduled to be completed in mid-1991. Remedies under consideration include capping the site and leachate collection and treatment systems.

Site Facts: An agreement between the EPA, the State of Ohio, and six companies was reached in 1985, requiring the companies to investigate possible contamination at and around the landfill. The companies will carry out the project under EPA monitoring.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Buckeye Reclamation site while studies are taking place and cleanup activities are being planned.

CHEM-DYNE
OHIO
EPA ID# OHD074727793



EPA REGION 5
CONGRESSIONAL DIST. 08
Butler County
Hamilton

Other Names:
Transenvironmental Services

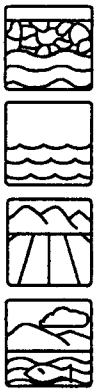
Site Description

The 10-acre Chem-Dyne site operated as an industrial chemical waste transfer, disposal, and storage facility. As early as 1974, chemical wastes may have been trucked to the site. In 1975, Spray-Dyne made antifreeze from recycled chemical wastes. The operation was expanded in 1976, and the Chem-Dyne Corporation was formed. Wastes that were unsuitable for recycling were stored in drums and tanks on the site or shipped to other disposal sites. More than 30,000 drums of waste and 300,000 gallons of bulk waste materials were on site when operations shut down in 1980. In the 5 years of operation, a number of environmental incidents were reported at the site. From 1976 to 1979, at least five fish kills in the Great Miami River were attributable to the Chem-Dyne facility; one fish kill stretched for 37 miles. Fires occurred at the site in 1976 and 1979. A residential area is located approximately 1,000 feet from the site. A storm sewer drains the site into the Ford Canal, which flows into the Great Miami River. The Ford Canal is used only for drainage and hydroelectric power generation. The Great Miami River is used for recreation. Water supplies in the area rely on groundwater as their source.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/21/81
Final Date: 09/08/83

Threats and Contaminants



Groundwater is contaminated with volatile organic compounds (VOCs) and heavy metals. Sediments in the Ford Canal contained low concentrations of organics. Soil was contaminated with VOCs, pesticides, other organic compounds, and heavy metals including mercury, arsenic, nickel, and beryllium. The on-site buildings were contaminated with polychlorinated biphenyls (PCBs). The site no longer poses a threat to human health or the environment due to the ongoing operation of a groundwater pump and treatment system, and the State of Ohio is preventing the use of the contaminated aquifer for drinking water.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1980, the EPA stabilized, removed, and disposed of 17 potentially explosive drums at a federally approved treatment facility. Beginning in 1982, the EPA removed another 9,000 drums and solidified and removed 200,000 gallons of liquid and solid wastes in 33 storage tanks to a federally approved facility. Spilled materials were cleaned up and wastewater was treated and disposed of. The storm drain in the loading dock area was plugged to prevent the discharge of contaminated waste into Ford Canal. The site also was fenced to prevent access.

Entire Site: In 1985, the EPA selected a remedy to clean up the site by installing a system to extract the groundwater and treating it by air stripping. The contaminants are further treated with activated carbon before the air is released into the atmosphere. In addition, the buildings on the site were demolished, selected areas of soil were removed, and a synthetic cap with a clay layer was placed over the site. The parties potentially responsible for site contamination completed all of these cleanup activities in 1987. The pump and treatment system has been in operation since 1988 and must operate until at least 1998 to meet established cleanup standards.

Site Facts: In 1979, the State of Ohio required all materials to be removed from the Chem-Dyne site by 1980. In 1985, the EPA and 178 parties potentially responsible for site contamination agreed to conduct cleanup activities under a Consent Decree.

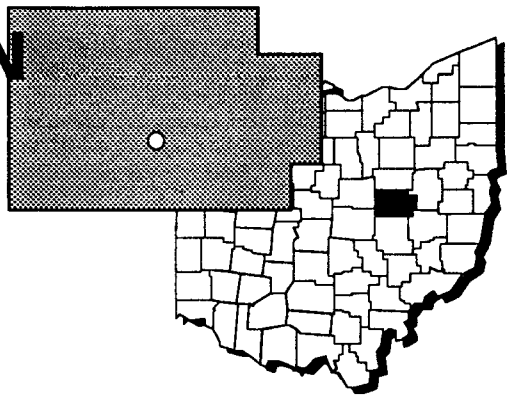
Environmental Progress

The treatment of contaminated groundwater, removal of contaminated soil, and placement of a cap over the site have eliminated the potential for exposure to hazardous materials at the Chem-Dyne site. The operation of the groundwater pump and treatment system continues to provide protection to nearby residents and the environment.

COSHOCTON LANDFILL

OHIO

EPA ID# OHD980509830



EPA REGION 5
CONGRESSIONAL DIST. 10
Coshocton County
Coshocton

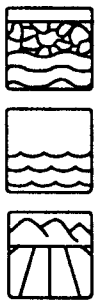
Site Description

The 80-acre Coshocton Landfill site was used in the early 1900s, and again from the mid-1950s until 1979, for the mining of coal. The subsurface mines were abandoned but contained extensive networks of mine shafts. The City built a landfill on top of the abandoned strip mines where it disposed of municipal and industrial wastes from 1968 to 1979. The City also put some wastes in a shallow excavation at the southern end of the site. In 1977, an area of the landfill caught fire. The fire burned for three days and was allowed to burn itself out. The EPA has reported several leachate seeps at the landfill. Approximately 13,400 people live in the City of Coshocton. Several farms are located near the landfill. There are at least 34 private wells for domestic use within 4,000 feet of the landfill; however, these wells do not draw their water from areas that would be affected by the landfill.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants



Groundwater has been contaminated with volatile organic compounds (VOCs) and heavy metals. Sediments on site contain VOCs and pentachlorophenol (PCP). Soils on site contain VOCs and phenols. Acetone and heavy metals are found in the surface water. On-site workers and trespassers can be exposed to hazardous substances if they come in direct contact with contaminated soils and groundwater, inhale contaminated soil particles, or drink contaminated groundwater.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: The EPA analyzed 14 drums on site and determined that they did not contain hazardous substances. In 1985, the City of Coshocton completed the cleanup of the drums and disposed of them in an off-site facility.

Entire Site: In 1988, the EPA selected a strategy to address contamination at the site. The selected cleanup activities include: (1) covering the landfill with a clay cap that prevents liquids from passing through; (2) installing a soil cap over the landfill with topsoil and vegetation; (3) imposing deed restrictions on future use of the property; (4) installing fencing around the landfill; (5) filling and grading the necessary areas; and (6) installing a gas collection and venting system and a leachate collection system. The technical design for the cleanup is scheduled for completion in 1992.

Site Facts: In 1989, the EPA issued a Unilateral Administrative Order to the City of Coshocton, requiring it to undertake some interim cleanup measures, primarily to protect surface water and to address the leachate being generated.

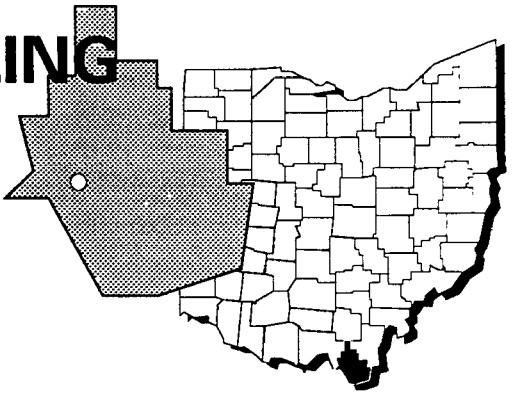
Environmental Progress

The cleanup and disposal of drums have reduced the potential for exposure to hazardous materials at the Coshocton Landfill site while cleanup activities are being planned.

E. H. SCHILLING LANDFILL

OHIO

EPA ID# OHD980509947



EPA REGION 5
CONGRESSIONAL DIST. 10
Lawrence County
1 1/2 miles northwest of Hanging Rock

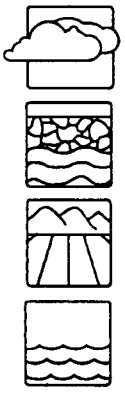
Site Description

The 3-acre E. H. Schilling Landfill site operated as an industrial waste landfill from 1969 until 1980. The landfill was licensed to accept only non-hazardous wastes, but was closed in 1980 as a result of permit violations. A variety of hazardous and non-hazardous wastes were disposed of on site. Landfill waste is contained behind an earthen dam and beneath a cover or cap. While the dam is structurally stable, it does not comply with existing standards. The landfill cap also fails to comply with State and Federal regulations. Leachate was discovered seeping from the face of the dam. Warning signs are posted at the site, and there is a barrier preventing vehicles from entering the premises. Approximately 1,500 people live within 3 miles of the site. The closest residence is located within 1/4 mile of the site. Domestic water is taken from municipal and private wells. Wayne National Forest borders the site to the north. An unnamed stream carries runoff from the site into Winkler Run and the Ohio River.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

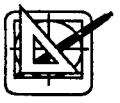


Nickel has been detected in air sampled near the landfill at levels exceeding Federal standards. Arsenic and volatile organic compounds (VOCs) have been found in groundwater. Leachate, soil, and stream sediments are contaminated with VOCs, polycyclic aromatic hydrocarbons (PAHs), and heavy metals. People who accidentally ingest contaminated groundwater, soil, or sediments may potentially suffer adverse health effects.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status



Entire Site: In 1989, the EPA selected the following cleanup technologies to address site contamination: (1) capping the entire site; (2) removing and treating 7,000,000 gallons of liquid waste and leachate from the landfill; (3) constructing a cut-off wall around the landfill to prevent groundwater from infiltrating into waste; (4) improving the earthen dam by adding a berm; (5) consolidating 750 cubic yards of soil and 500 cubic yards of sediment under the cap; (6) adding perimeter drainage features; (7) fencing the entire site; (8) monitoring groundwater; (9) operating and maintaining the site; and (10) imposing deed restrictions. The potentially responsible parties, under EPA monitoring, have begun designing the technologies for the selected remedy. The design phase is expected to be completed in 1992.

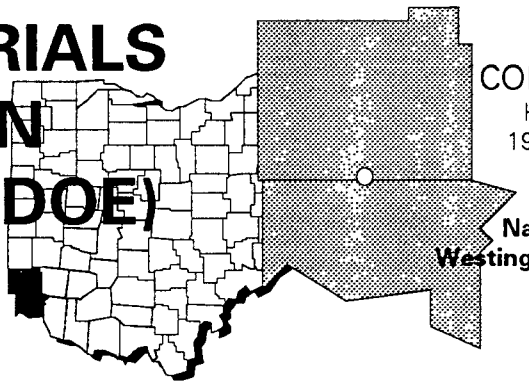
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the E. H. Schilling Landfill site while cleanup activities are being designed.

FEED MATERIALS PRODUCTION CENTER (USDOE)

OHIO

EPA ID# OH6890008976



EPA REGION 5

CONGRESSIONAL DIST. 01

Hamilton and Butler Counties

19 miles northwest of Cincinnati

Other Names:
National Lead Co. of Ohio (SIA)
Westinghouse Materials Company of Ohio
Fernald

Site Description

The 1,450-acre Feed Materials Production Center site is operated by the U.S. Department of Energy (DOE) and has manufactured metallic uranium for DOE nuclear weapon reactors since the early 1950s. The manufacturing processes have generated large quantities of wastes, including low-level radioactive wastes, mixed hazardous and radioactive wastes, oils, solvents, and fly ash. Operations and disposal practices have resulted in contamination in the production area, six waste pits, three waste storage silos, a storm sewer ditch leading to Paddy's Run, and an effluent line discharging into the Great Miami River. Additional waste storage and disposal areas included other silos, a burn pit, a clear well, two fly ash disposal areas, a sanitary landfill, and two lime sludge ponds. Uranium has contaminated the Buried Valley Aquifer, the sole source of drinking water for the production center workers and most area residents. Approximately 1,100 production center workers obtain drinking water from wells, and 750 acres of land are irrigated by wells within 3 miles of the site. A residential area is located about 4,000 feet east of the production area. The Great Miami River is used for various recreational purposes.

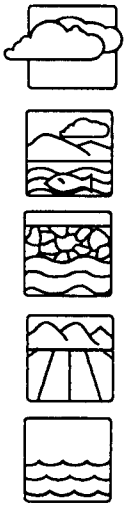
Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY

Proposed Date: 07/14/89

Final Date: 11/24/89

Threats and Contaminants



Radon gas has been detected in the air. Fish and plants contain radionuclides and heavy metals. Groundwater is contaminated with uranium, radium, and various volatile organic compounds (VOCs). Uranium has been detected in the sole source aquifer. Metallic scrap contained in several scrap piles is contaminated with uranium and other radionuclides. Creek and ditch sediments are contaminated with uranium and other radionuclides, while soil is contaminated with radionuclides, organics, inorganics, and asbestos. High concentrations of uranium, technetium, and hexavalent chromium have been detected in the effluent line discharging to the Great Miami River. Three uranium-contaminated private wells have been closed and are no longer used for drinking water. Potential health threats to people include accidentally ingesting, coming in direct contact with, or inhaling contaminated soil, groundwater, air, and surface water. Eating contaminated plants and fish is also a potential threat.

Cleanup Approach

Cleanup activities at this site are being addressed in six stages: immediate actions and five long-term remedial phases focusing on cleanup of the waste pits and soils, the groundwater, the production area, the K-65 silos, and the provision of an alternate water supply and water treatment.

Response Action Status

Immediate Actions: In 1990, waste in the pits was moved below the water line to reduce radionuclide emissions. A ben tonite clay layer was placed inside the silos to cover wastes. Construction activities soon will begin to control the stormwater runoff. Immediate actions are planned for an alternate water supply and for water treatment.

Waste Pits and Soils: The DOE is investigating the nature and the extent of the contamination in the waste pits and soils. The pits contain 500,000 cubic yards of wastes, and approximately 500,000 cubic yards of contaminated soil are on site. Once the investigation is completed, specific cleanup strategies will be recommended.

Groundwater: The DOE is investigating the nature and extent of groundwater contamination at the site. The study indicates the groundwater is more contaminated than originally thought. Once the investigation is completed, cleanup remedies will be planned.

Production Area: The DOE is assessing the nature and extent of contamination in the production area. A remedy will be selected based on the results of the investigation.

K-65 Silos: The DOE is studying the extent of the contamination at the silos. The results of the investigation will lead to the selection of appropriate cleanup remedies.

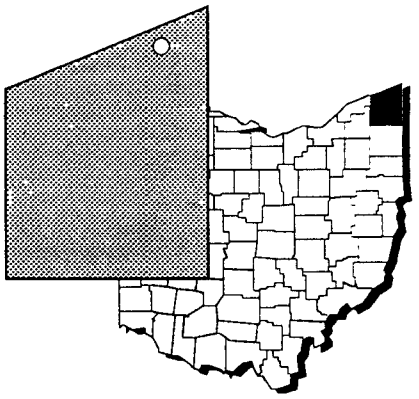
Alternate Water Supply and Water Treatment: The DOE is continuing to characterize the nature and extent of contamination at the site. The investigation is exploring options for an alternate water supply, collection of the contaminant plume, and water treatment.

Site Facts: A Federal Facilities Compliance Agreement was signed in 1986 between the EPA and the DOE. Pursuant to the Agreement, the DOE is required to conduct a study of the nature and extent of site contamination and to recommend alternatives for final cleanup. A Consent Decree was signed in 1988. A new Consent Agreement was finalized in mid-1990.

Environmental Progress

Reducing radionuclide emissions by moving pit waste to below the water level and placing a clay layer over wastes in the silos have lessened the risk to human health and the environment at the Feed Materials Production Center. Additional immediate actions are planned to further reduce sources of contamination while site investigations continue.

FIELDS BROOK
OHIO
EPA ID# OHD980614572



EPA REGION 5
CONGRESSIONAL DIST. 11
Ashtabula County
Ashtabula

Site Description

The Fields Brook site is a 3 1/2-mile channel in a tributary of the Ashtabula River and collects water from a 5 1/2-square-mile area. A portion of Fields Brook flows through an industrial area containing a high concentration of diverse chemical plants and serves as the principal receiving stream for many industrial discharges. The site includes a brook and its tributaries and areas bordering the site. From the industrial area, the brook flows through a residential area to the Ashtabula River. Industrial sources adjacent to Fields Brook have contaminated the sediments with a variety of toxic chemicals including polychlorinated biphenyls (PCBs) and heavy metals. The Ashtabula River empties into Lake Erie, 1 1/2 miles downstream of the site. Lake Erie serves as the potable water source for the City of Ashtabula. Contaminated sediments threaten drinking water intakes in Lake Erie.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/22/81
Final Date: 09/08/83

Threats and Contaminants

Sediments taken from the Ashtabula River are contaminated with PCBs, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), heavy metals, and phthalates. VOCs and heavy metals including mercury, lead, zinc, and cadmium have been detected in surface water from Fields Brook and the Detrex tributary. Contaminants detected in fish include VOCs and PCBs. The site poses a potential health risk to people who may drink or come in direct contact with contaminated water from Fields Brook and the Ashtabula River. Ingesting contaminated fish or sediments also may cause adverse health effects.

Cleanup Approach

This site is being addressed in three long-term remedial phases focusing on cleanup of sediments, controlling the source of contamination and investigation of the Ashtabula River.

Response Action Status

Sediments: The selected cleanup technologies to address contaminated sediments include: (1) excavating contaminated sediments from Fields Brook, subsequent temporary storing and dewatering of the sediments, and using thermal treatment on a portion of the sediments with the on-site landfilling of the remainder of the sediments; (2) treating of wastewater from the dewatering process; and (3) long-term monitoring. Approximately 36,000 cubic yards of contaminated sediments will be solidified and 16,000 cubic yards will be thermally treated. Under EPA monitoring, six of the parties potentially responsible for site contamination are presently designing the technical specifications for the sediment cleanup. Final sediment cleanup activities are expected to be completed in 1995.

Source Control: Under EPA monitoring, six of the potentially responsible parties currently are conducting a study to identify sources of ongoing sediment and surface water contamination. The study is planned to be completed in 1992.

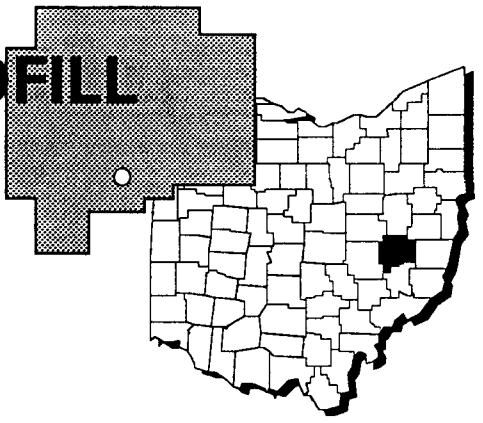
Ashtabula River: Five potentially responsible parties, under EPA monitoring, are conducting an investigation into possible contamination of the Ashtabula River. The investigation will identify any potential sources of contamination to the river and harbor and will study the impacts of contamination on the water supply of the City of Ashtabula. Portions of the river may be added to the site if cleanup actions are required.

Site Facts: In 1989, six of the potentially responsible parties agreed to comply with an order from the EPA requiring them to design the cleanup technologies to address contaminated sediments at the site and to study the ongoing sources of site contamination. A separate order covers the river investigation. The EPA and the State issued a health advisory recommending that people not eat fish caught in a portion of the Ashtabula River because of possible contamination.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Fields Brook site while further studies are taking place and cleanup activities are being planned. Investigations currently underway are determining if the Ashtabula River will require cleanup.

FULTZ LANDFILL
OHIO
EPA ID# OHD980794630



EPA REGION 5
CONGRESSIONAL DIST. 18
Guernsey County
1/2 mile northeast of Byesville

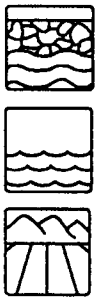
Site Description

From the mid-1950s to 1985, residential, commercial, and industrial solid waste was disposed of at the 30-acre Fultz Landfill site. The site lies in an area that was strip mined for coal in the late 1940s. Extensive subsurface coal mines also are located near the site. The landfill was licensed by Guernsey County in 1969 to accept solid waste products. On a number of occasions during the 1970s, County and State officials cited the owner of the landfill for violations of the operating license, which included inadequate control of leachate runoff and unauthorized disposal of drums that contained potentially hazardous liquid waste. In 1978, the Ohio Environmental Protection Agency found approximately 1,000 drums of hazardous waste on the property. Because the landfill was not authorized to accept hazardous waste, the State contacted the businesses generating the drums, requesting that they stop sending drums to the landfill. A former employee of the landfill confirmed that drums were emptied onto the ground so the empty drums could be sold to a recycler. The State investigated the site again in 1979 and 1980 and found that leachate seeping from the site contained phenols and heavy metals. Six ponds lie on the northern and eastern sides of the landfill. In addition, two streams, Streams A and B, are located nearby. Both streams discharge to Wills Creek. Residents of Cambridge, 3 miles north of the landfill, use Wills Creek as a source of drinking water. Five private water wells and one municipal water well are located near the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants



Groundwater contains heavy metals such as arsenic, barium, chromium, and lead; volatile organic compounds (VOCs); and phthalates. Sediments in two on-site ponds and leachate are contaminated with heavy metals, as well as low levels of organic compounds. Wills Creek also contains low levels of organic compounds. An aquifer under the site is contaminated with heavy metals. It is currently not known whether the contamination of this aquifer is site-related, or if it is the result of the extensive coal mining in the area. If pollutants seep into the water supply, people who come in direct contact with or drink the water may be at risk. Leachate seeps from the landfill into nearby ponds and creeks. Wildlife in or around these bodies of water may be harmed by the pollutants.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: In 1984, the EPA began an investigation to study the type and extent of the contamination at the site. Additional data is being gathered to determine the source of the contamination, the extent of groundwater contamination, whether drinking water sources are threatened, and the risk to the public health and environment. As a result of the study, a final report is scheduled to be prepared in 1991, which will include recommended measures for site cleanup.

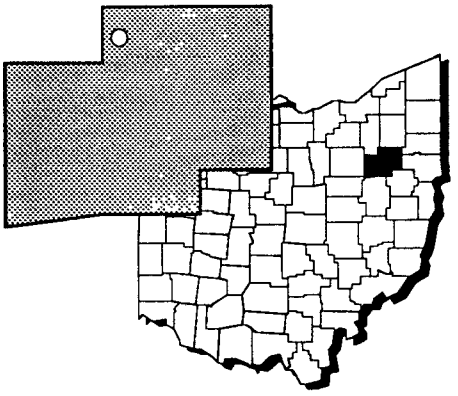
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Fultz Landfill site while studies are taking place and cleanup activities are being planned.

INDUSTRIAL EXCESS LANDFILL

OHIO

EPA ID# OHD000377911



EPA REGION 5
CONGRESSIONAL DIST. 16
Stark County
10 miles from Akron

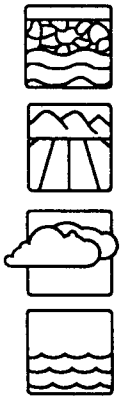
Site Description

Before 1966, the 30-acre Industrial Excess Landfill (IEL) site was used for mining sand and gravel. Gradually, the mining and excavation pit was converted into a landfill, which operated at the site from 1966 to 1980. During this time, IEL accepted wastes primarily from the nearby rubber industries. An estimated 780,000 tons of solid waste and 1,000,000 gallons of liquid waste were dumped onto the ground at the landfill. The Stark County Board of Health ordered IEL to stop dumping chemical wastes in 1972. The landfill was closed in 1980. After the landfill stopped operations, it was covered with soil, and fertilizer was applied to the surface to help vegetative growth. Before the EPA became involved with the site in 1984, several State and local government agencies were involved with licensing issues, inspections, and other response activities at the landfill. The Ohio EPA began an investigation to determine whether area drinking water was contaminated and if the site posed a health risk to nearby residents. The population within a 1-mile radius of the site was approximately 2,500 in 1989. Over 400 residences located within a 1/2-mile radius of the landfill rely entirely on individual or private wells for their drinking water supply.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 07/16/82
Final Date: 09/08/83

Threats and Contaminants



Groundwater is contaminated with heavy metals including barium and chromium, and with volatile organic compounds (VOCs). On-site leachate is contaminated with heavy metals, VOCs, and phthalates. On-site soil gases located near the northern and southern boundaries of the site contain VOCs. On-site sediments are contaminated with heavy metals, cyanide, VOCs, phthalates, and pesticides. On-site surface soils have been shown to contain VOCs, heavy metals, and plastics. Off-site surface water is contaminated with heavy metals and phthalates. A potential exists for adverse effects to the aquatic life in the streams that receive runoff from the site. People who come into direct contact with or accidentally ingest contaminated groundwater or soil may suffer adverse health effects.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of the entire site and the provision of an alternate water supply.

Response Action Status

Initial Actions: Between 1985 and 1988, the EPA installed an active methane-venting system to control the migration of this chemical off site. Methane gas has stopped moving off site since the venting system was completed in 1988. During the installation of this system, 53 drums of suspected industrial waste were uncovered. These drums subsequently were removed from the site and disposed of in an EPA-approved facility. After testing completed by the EPA in 1987 showed that ten private residential wells were contaminated with VOCs, the EPA installed air strippers to remove vinyl chloride and other VOCs from the water. Four additional landfill gas monitoring wells were installed in 1989.

Entire Site: The methods selected by the EPA in 1989 to clean up the site include: (1) covering the entire site with multiple layers of clay and other soils; (2) expanding the methane gas venting system that is already in place; (3) extracting and treating contaminated groundwater; (4) pumping groundwater to maintain the water table at a level that is below that of the wastes in the landfill; (5) fencing the site; (6) placing deed restrictions on future use of the site; and (7) continued monitoring of the site. Design of the remedy began in 1989. The EPA has demolished and removed on-site structures for preparation of the clay cap. Residential wells have been properly abandoned. Final grading and seeding of the properties is expected to be completed in mid-1991. Cleanup activities are expected to be completed in 1994.

Alternate Water Supply: Alternate water has been supplied to an area comprising of approximately 100 homes located west of the site. Final grading and seeding is underway and is scheduled to be completed in mid-1991.

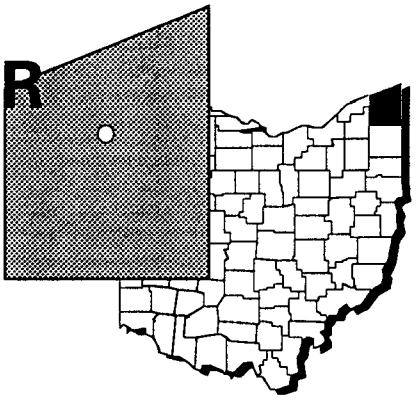
Environmental Progress

The actions taken to control methane gas migration, the removal of drums containing industrial waste, the installation of air strippers, and the installation of an alternate water supply have greatly reduced the potential of exposure to hazardous substances in the drinking water and will continue to protect residents near the Industrial Excess Landfill site until the completion of the other cleanup activities.

LASKIN/POPLAR OIL CO.

OHIO

EPA ID# OHD061722211



EPA REGION 5

CONGRESSIONAL DIST. 11

Ashtabula County
Jefferson

Other Names:
Laskins Waste Oil Co.
Alaskain Greenhouse Waste Oil
Poplar Oil Co.

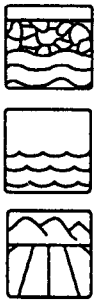
Site Description

The 9-acre Laskin/Poplar Oil Co. site is a greenhouse and waste oil recovery operation that opened during the late 1890s. By the 1950s, the operation had installed oil-fired boilers to heat the greenhouses. In the 1960s, storage tanks and pits were installed to store waste oil. Environmental problems at the site are related to the subsequent storage, handling, and combustion of waste oil. The EPA and the Ohio EPA discovered contamination at the site in 1977, and much of the on-site oil was removed during the next 5 years. The site contains two drained ponds formerly used to separate oil, a boiler house, four oil storage pits, one underground oil storage tank, 32 aboveground oil storage tanks, a retention pond, a freshwater pond, a greenhouse complex, and other miscellaneous buildings and sheds. Three small treatment ponds lie near the bottom of the Cemetery Creek ravine, north of the retention pond. Liquids stored in the tanks and ponds have the potential to overflow, leak, or collapse because of poor construction and maintenance. Any contaminants released would enter Cemetery Creek. The creek is a tributary of Mill Creek, which flows into the Grand River. Drinking water is drawn from the Grand River in Harpersfield Township, approximately 11 1/2 miles downstream of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 07/16/82
Final Date: 09/08/83

Threats and Contaminants



The groundwater is contaminated with phenols, polycyclic aromatic hydrocarbons (PAHs), and acetone. Sediments in the on-site retention pond are contaminated with volatile organic compounds (VOCs), pesticides, polychlorinated biphenyls (PCBs), and lead. PCBs, PAHs, and heavy metals including aluminum, iron, cobalt, thallium, silver, cadmium, and lead are contaminating the soil, while soil in the boiler house is contaminated with dioxin. The surface water in the on-site retention pond is contaminated with low levels of acetone in addition to arsenic, mercury, and other heavy metals. A potential health threat exists if accidental ingestion of contaminated soils and surface water were to occur. There is also a possibility that contaminants may enter the food chain and contaminate meats and vegetables that are raised locally.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of ponds, structures, and soils, as well as other areas of surface contamination.

Response Action Status

Initial Actions: In 1980, the EPA stabilized the site by treating the water from the pond through a sand filter and activated carbon system. The treated water was discharged to Cemetery Creek. When oil-contaminated water from a pond overflowed into the creek, the oil was recovered with sorbent booms. The pond and tanks were covered. From 1982 to 1986, various actions were performed at the site including: (1) removal of 300,000 gallons of contaminated oil; (2) on-site treatment of 400,000 gallons of contaminated wastewater; (3) on-site containment of 205,000 gallons of contaminated sludge; (4) removal of an additional 250,000 gallons of wastewater and oil; (5) removal of contaminants from one pond; and (6) removal of approximately 100 drums containing hazardous wastes. The potentially responsible parties removed 450,000 gallons of oil and wastewater from the pits and tanks in 1985 and 1986. Later in 1986, they sampled the residues left in the pits and tanks and conducted additional soil borings. In 1987, the EPA repaired the existing fence around the site and the leaks found in the covers of the underground tanks.

Ponds, Structures, and Soils: The EPA chose the following methods for cleanup: (1) drain the retention and freshwater ponds, discharge the surface water from the ponds to Cemetery Creek, with treatment if required; (2) backfill freshwater ponds with clean fill and grade the retention pond area; (3) thermally treat contaminated soil, ash, and debris from the boiler house area and dispose of the ash in a federally approved landfill; (4) demolish and thermally treat or decontaminate dioxin-contaminated structures, or if this material cannot be decontaminated or thermally treated, it will be contained in an on-site concrete vault and placed beneath the cap for temporary storage until proper effective disposal can be secured for the material; (5) construct a groundwater diversion trench uphill from the contaminated soil and groundwater; (6) construct a multi-layer cap over soils; (7) dewater the site by natural groundwater flow to Cemetery Creek; (8) monitor groundwater and surface water to assess the quality of groundwater migrating to Cemetery Creek; and (9) impose access and use restrictions. Design of these cleanup activities began in 1990 and is expected to be completed in 1992. Cleanup of the freshwater ponds has been completed.

Surface Contamination: Based on the results of the site investigation, the EPA has selected several remedies to address surface contamination. The cleanup strategy for this portion of the site includes: constructing a fence around contaminated portions of the site and the incinerator; incinerating oils, sludges, and contaminated soils, with the safe disposal of all incinerator ash; dismantling and disposing of all tanks and cinder blocks in the pits; and regrading the site to prevent ponding in the excavated areas. The potentially responsible parties, under EPA monitoring, have completed most of the design work for sludge and oil incineration and the removal of tanks and contaminated soils. The design phase is expected to be completed in 1991. Cleanup work is scheduled to begin in 1991 and is expected to be completed in 1992.

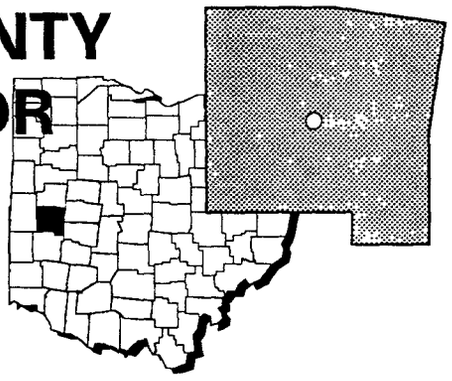
Environmental Progress

The removal of contaminated oil, wastewater, and drums, along with the treatment of contaminated wastewater and contaminated sludge, have greatly reduced the potential for exposure to hazardous substances at the Laskin/Poplar Oil site. Cleanup of the freshwater ponds has eliminated further contamination of Cemetery Creek while cleanup activities are being designed and planned at the site.

MIAMI COUNTY INCINERATOR

OHIO

EPA ID# OHD980611800



EPA REGION 5
CONGRESSIONAL DIST. 04
Miami County
2 miles north of Troy

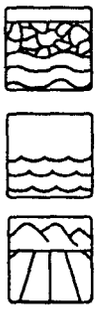
Site Description

The 65-acre Miami County Incinerator (MCI) site contains five areas of concern: the South Landfill, the North Landfill, the Liquid Disposal Area, Contaminated Groundwater, and the Ash Disposal Pit and Ash Pile. Other important features of the site include an area of visibly stained soil near the incinerator building, a former scrubber wastewater lagoon, and sediment in the Eldean Tributary. The incinerator and landfill were opened in 1968 to process and dispose of municipal and industrial wastes. Combustible wastes were to be incinerated and non-combustible wastes were to be landfilled. However, large volumes of combustible wastes were landfilled along with non-combustible wastes. The facility generated scrubber wastewater and ash quench water, which were disposed of in the wastewater lagoon. Incinerator fly ash and bottom ash, non-combustible materials, and unburned refuse were disposed of in a landfill north of the tributary, and liquid wastes, including waste oils and solvents, were dumped or buried on site. MCI was ordered by the Ohio EPA to cease the disposal of liquid waste by 1974. The site stopped accepting liquid wastes in 1975, and all landfill operations ended in 1978. The incinerator building now serves as a solid waste transfer station. The Eldean Tributary of the Great Miami River runs across the northwestern corner of the site. The eastern section of the site is located in a 100-year flood plain. Municipal wells serving 19,000 people are located within 3 miles of the site. The nearest private wells are 1,000 feet downgradient from contaminated wells.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



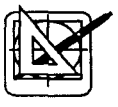
Volatile organic compounds (VOCs) and heavy metals including arsenic, barium, and cadmium were detected in groundwater near the Liquid Disposal Area. Sediments along the unnamed creek are contaminated with pesticides and polychlorinated biphenyls (PCBs). VOCs, polycyclic aromatic hydrocarbons (PAHs), PCBs, dioxins, pesticides, and heavy metals including arsenic, lead, cadmium, and chromium were detected in soil below the surface of the Liquid Disposal Area. Potential health risks exist for those who ingest contaminated water or the contaminated soil. Cleanup workers and children playing on the site may be most at risk. However, the site does have ground cover, lessening the opportunity for direct contact with the soil.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: Three residences, the Miami County Highway garage, and the incinerator facility were provided with alternate water supplies in 1986. Other affected residences were provided with alternate water supplies in 1989.



Entire Site: In 1989, the EPA selected the following remedies for each area of concern. For the South Landfill and the North Landfill, the EPA will construct a single-barrier clay cap to prevent direct contact with the contaminants and decrease infiltration of rainwater in order to reduce the potential for groundwater contamination. The Ash Pile will be cleaned up by removing contaminated soil, treating it if necessary, and placing the material into the North or South Landfill before construction of the cap. The Ash Disposal Pit will be capped. Soil vapor extraction, groundwater pumping and treatment, and capping will be used to treat the Liquid Disposal Area and Contaminated Groundwater Area. Soil vapor extraction will reduce the risk of future VOC releases and reduce the volume of contamination in the soil. Groundwater pumping and treatment will reduce the volume of contamination in groundwater within and downgradient of the Liquid Disposal Area. All of the remedies include construction of a fence to reduce the potential for site access and land use restrictions to prevent future exposure to contaminants. The parties potentially responsible for the contamination have started to design part of the cleanup approach and are expected to complete the design for all cleanup technologies by 1992.

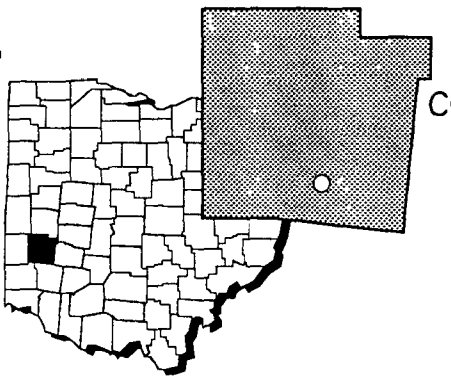
Environmental Progress

By supplying an alternate water supply, the potential of exposure to hazardous substances in the drinking water has been eliminated, and residents near the Miami County Incinerator site will continue to be protected until planned cleanup activities are completed.

MOUND PLANT (US DOE)

OHIO

EPA ID# OH6890008984



EPA REGION 5

CONGRESSIONAL DIST. 08

Montgomery County

Miamisburg

Other Names:
US DOE Mound Facility

Site Description

The 306-acre Mound Plant facility has operated since 1948 in support of weapons and energy programs, with an emphasis on small explosive components and nuclear technology. First operated by the Atomic Energy Commission, it now is operated by a contractor for the Department of Energy (DOE). The site consists of two elevated areas divided by a small valley. The major waste areas are on the southern slope and the valley of the northwestern elevated area. They include a landfill in which solvents, paints, and chemical solutions were deposited; several leachate beds used to dispose of solutions containing radionuclides and explosive materials; and an area in which a solution contaminated with plutonium was spilled. The landfill operated from 1948 until the mid-1970s, and in 1978, the existing wastes were excavated and placed in a lined landfill. The facility employs 2,200 people. Miamisburg municipal wells are within 3 miles of the site and serve approximately 17,000 people. There is no alternate water supply source. A system of ditches, canals, and ponds carries surface waters from the facility to the Great Miami River approximately 1 mile downstream. The river is used for recreational activities.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY

Proposed Date: 07/14/89

Final Date: 11/17/89

Threats and Contaminants

Groundwater is contaminated with various volatile organic compounds (VOCs). Leachate beds contain radionuclides and explosives. Off-site sediments are contaminated with plutonium. Drinking contaminated groundwater or coming in contact with other site contaminants are potential health threats.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: In 1990, a site investigation was begun by the DOE to determine the extent of contamination and to recommend alternatives for cleaning up the site. The results of this investigation are expected in early 1993. The site probably will be divided into several cleanup phases as the studies progress.

Site Facts: The site is being addressed under the DOE Comprehensive Environmental Assessment and Response Program. The investigation and cleanup are being conducted as part of a Federal Facility Agreement between the DOE and the EPA, which became effective in October 1990.

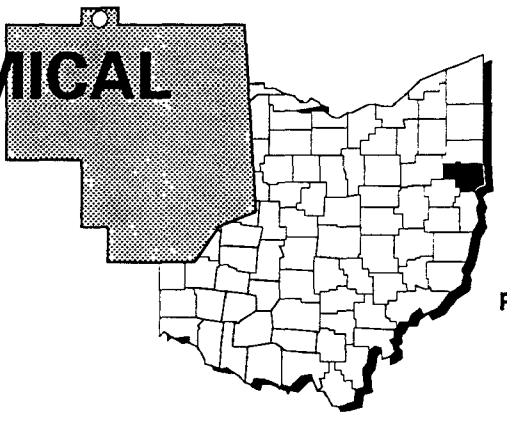
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the DOE Mound Plant site while studies are taking place and cleanup activities are being planned.

NEASE CHEMICAL

OHIO

EPA ID# OHD980610018



EPA REGION 5

CONGRESSIONAL DIST. 17

Columbiana County

Salem

Other Names:
Ruetgers Nease Chemical Company/
Salem Plant

Site Description

The 44-acre Nease Chemical Company site was used for the manufacturing of pesticides, fire retardants, cleaning compounds, and pharmaceutical products. The plant closed the production facilities in 1973 and completed site closure activities in 1975. In 1982, a report indicated that contaminants had migrated from the site and drums had been buried on the site. Following approval from the EPA in 1983, the company removed the buried drums and associated contaminated soils from the site and removed soils from a barren area. In addition, the company removed soil from an abandoned pond and a freshwater ditch running parallel to the main railroad line. Between 1983 and 1984, additional monitoring wells and soil borings were drilled to further define the hydrogeology and groundwater quality. Residences are located near the site. Feder Creek, located on the site, drains into Middle Fork and Little Beaver Creek, where a 1987 EPA investigation verified sediment and fish contamination. These creeks drain into the Ohio River.

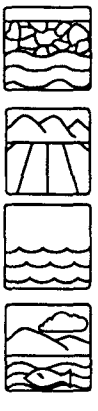
Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 12/30/82

Final Date: 09/08/83

Threats and Contaminants



Groundwater, soil, and sediments are contaminated with volatile organic compounds (VOCs). A 1987 EPA study showed contamination of fish and sediments with mirex, a pesticide and fire retardant. Dairy herds on two nearby farms were affected by exposure to creek contamination. Access to the site now is restricted by fencing and bridges.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: Several initial cleanup actions have been completed to locate and remove the main sources of contamination at the site. Earlier cleanup actions conducted by the company included the removal of contaminated contents of the waste ponds and buried drums located on the site, along with associated soils.

Entire Site: Under EPA monitoring, the parties potentially responsible for the contamination initiated an investigation in 1988 to determine the nature and extent of site contamination and to identify alternative cleanup methods. A preliminary assessment indicates that any remaining contaminated soil will require removal and contaminants will need to be separated from groundwater. Additionally, a groundwater containment system needs to be implemented. The final cleanup remedy for the site will be selected once the investigation is completed in 1993.

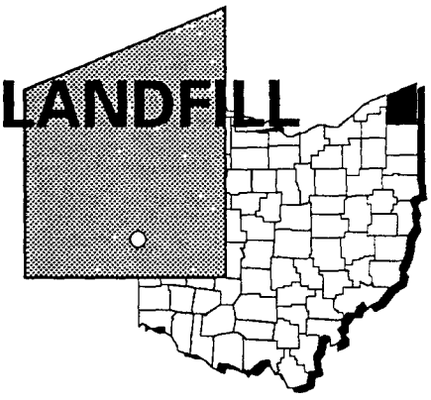
Environmental Progress

Initial cleanup actions have removed the immediate sources of contamination and have reduced the potential for nearby residents to be exposed to hazardous wastes left on the site at the Nease Chemical Company while studies are taking place and cleanup activities are being planned.

NEW LYME LANDFILL

OHIO

EPA ID# OHD980794614



EPA REGION 5
CONGRESSIONAL DIST. 11
Ashtabula County
New Lyme

Other Names:
Ashtabula County Waste, Inc.

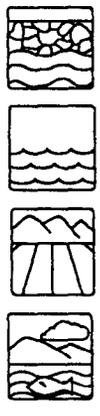
Site Description

Operations began at the 40-acre New Lyme Landfill site in 1969 and were initially managed by two farmers. In 1971, the landfill was licensed by the State of Ohio, and operations were taken over by a licensed landfill operator. The site received various wastes and construction and demolition debris. However, numerous violations of the license occurred, including open dumping, improper spreading and compacting of wastes, no State approval for disposal of certain industrial wastes, and excavation of trenches into the shale bedrock. In 1978, the landfill was closed by the Ashtabula County Health Department. Wastes at the site included asbestos, coal tar, resins, paint sludge, oils, corrosive liquids, acetone, volatile organic chemicals (VOCs), chlorinated solvents, and laboratory chemicals. Leachate containing organics discharged from two sides of the fill area and threatens nearby surface waters. There is also concern that groundwater might be contaminated by leachate from the landfill. Ten families live within 1/4 mile of this site. Three households are presently using groundwater as their drinking water source. Lebanon Creek and a wetland known as the New Lyme Wildlife Area are located near the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants



The groundwater is contaminated with VOCs and phenols. Sediments in Lebanon Creek, the wetlands, and leachate seeps have been exposed to VOC, lead, and chromium contamination by surface runoff during site operations and leachate seep discharge. Surface soil samples from the central and eastern portion of the site contained VOCs. One soil sample contained polychlorinated biphenyls (PCBs). Potential health risks may exist for individuals accidentally ingesting or touching the contaminated groundwater, soil, sediments, or leachate. Lebanon Creek, other area surface waters, and area wetlands may be threatened by the site contamination.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

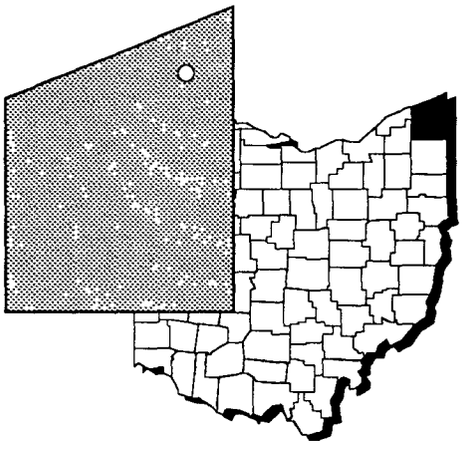
Response Action Status

Entire Site: In 1985, the EPA selected the following cleanup actions for the site: (1) construction of a cap over the landfill; (2) installation of extraction and containment wells around the perimeter of the landfill to dry up the landfill and to eliminate leachate production; (3) on-site treatment of contaminated groundwater and leachate; (4) on-site consolidation of contaminated sediments; (5) installation of gas vents; (6) fencing of the site; and (7) installation of a groundwater monitoring system. The cleanup work was completed in 1990. The wastewater treatment plant is currently in the checkout phase and is expected to be in operation by late 1991.

Environmental Progress

The completed cleanup activities, including the construction of the cap, have greatly reduced the potential for exposure to hazardous substances at the New Lyme Landfill site while the water treatment plant for the final phase of the site cleanup plan is tested and put into operation.

OLD MILL
OHIO
EPA ID# OHD980510200



EPA REGION 5
CONGRESSIONAL DIST. 11
Ashtabula County
Rock Creek

Other Names:
Webb MR
Rock Creek/Jack Webb
Kraus Disposal Site

Site Description

The Old Mill site consists of two parcels of land, the 3-acre Henfield Property and the 10-acre Kraus property. The Henfield Property included four dilapidated wood buildings and four concrete silos, which were removed as part of the site cleanup. This property became contaminated when drummed waste and potting soil additives were improperly stored. The Kraus Property partially is covered with piles of railroad ballast and had one empty abandoned bulk liquid tank. Wastes from the Henfield property were stored on the Kraus property with the owner's permission. In 1979, the EPA and Ohio EPA found approximately 1,200 drums of toxic waste, including solvents, oils, resins, and polychlorinated biphenyls (PCBs), stored on both properties. The drums leaked, causing contamination of soil and groundwater. Approximately 100 homes are within a 1/4-mile radius of the site. An estimated 1,400 people are living within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

Volatile organic compounds (VOCs) are contaminating the groundwater underneath the Henfield property and the Kraus Property. VOCs and heavy metals including lead were found to be contaminating the soils near the silos on the Henfield Property and in the drum storage area of the Kraus property. Potential health risks exist through accidental ingestion or direct contact with the contaminated groundwater.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1981 and 1982, some of the parties potentially responsible for site contamination voluntarily removed 580 drums of wastes. Later in 1982, all remaining drums were removed, and contaminated soil was removed from the drum storage area. Soil and well water samples were taken and analyzed. In 1984, a security fence was installed around the site.

Entire Site: In 1985, the EPA selected the following cleanup alternatives: (1) removal and off-site disposal of a select volume of contaminated soil; (2) extraction and treatment of contaminated groundwater; (3) aquifer use restrictions; and (4) providing an alternate water supply for one residence. By 1989, the EPA had removed the contaminated soils and installed the groundwater collection and treatment system. Groundwater still is being pumped and treated. The silos and buildings, drums, and tanks were removed, and debris was taken to an off-site disposal facility.

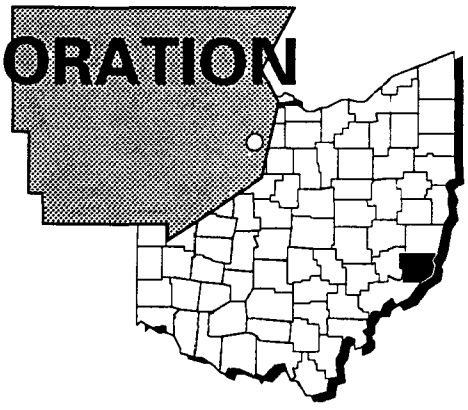
Environmental Progress

The removal of contaminated soil and debris, along with the installation of the groundwater pump and treatment system, have resulted in the cleanup of the Old Mill site. The groundwater will continue to be treated until contaminant levels meet the cleanup standards specified in the remedy.

ORMET CORPORATION

OHIO

EPA ID# OHD004379970



EPA REGION 5
CONGRESSIONAL DIST. 18
Monroe County
Hannibal

Site Description

The 200-acre Ormet Corporation site is an aluminum processing facility that began operating in 1958. Between 1958 and 1968, approximately 85,000 tons of spent potliner material were stored in an unlined, open storage area. From 1968 until 1981, Ormet operated a caustic digestion process to recover chemicals from the potliner material. Since 1981, spent potliner material has been transported off site for disposal. From 1958 to 1981, as many as five unlined disposal ponds were used to hold waste materials at the site. Untreated water from the facility, as well as contaminated groundwater, empties into the Ohio River. The Ohio River is a major industrial waterway, recreational area, and source of drinking water for many communities along its banks. Approximately 1,500 people live within a 3-mile radius of the site. The Ohio River separates the site from the closest residence, which is 1,500 feet away. The well that provides drinking water for over 3,000 employees of Ormet and the nearby Consolidated Aluminum Corp. is 1,970 feet from the site. There are no other public water supply wells within a 3-mile radius of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/18/85
Final Date: 07/21/87

Threats and Contaminants

Groundwater is contaminated with cyanides and fluorides. Sludges in an 8-acre lagoon on site are contaminated with polycyclic aromatic hydrocarbons (PAHs), cyanide, fluoride, volatile organic compounds (VOCs), and petrochemicals. People can be exposed to hazardous substances from the site by drinking or coming in direct contact with contaminated groundwater. Contaminated groundwater could affect the drinking water supply for workers at the Ormet Corporation plant and the nearby Consolidated Aluminum Corp.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: In 1987, the EPA and the Ohio EPA began an investigation to identify the types and amounts of contaminants on and near the site. The following activities were completed during the first phase of the investigation: (1) samples of surface water, groundwater, surface soils, and sediment were collected at and near the site and were tested; (2) air quality at certain locations was analyzed; and (3) data from previous investigations of the site were reviewed to assist in identifying contaminants present at the site. The second phase of the investigation included the following activities: (1) groundwater sampling; (2) investigating construction material scrap dump to define the types of contaminants within and originating from this area; (3) investigating the carbon runoff and deposition area to define the boundaries of the area and to determine the thickness of the carbon material; and (4) sampling the Ohio River sediment to define the extent and type of contamination. The Ormet Corporation, under EPA and Ohio EPA monitoring, will evaluate the best ways to address contamination problems found at the property. The investigation will provide the basis for selecting a cleanup method for the property, scheduled for fall 1991.

Site Facts: In 1987, the EPA and the Ohio EPA negotiated an Administrative Order on Consent with the Ormet Corporation to conduct a study of the nature and extent of contamination at the site.

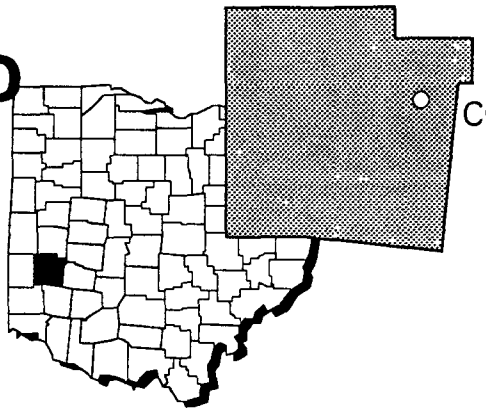
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Ormet Corporation site while studies are taking place and cleanup activities are being planned.

POWELL ROAD LANDFILL

OHIO

EPA ID# OHD000382663



EPA REGION 5

CONGRESSIONAL DIST. 03

Montgomery County
Dayton

Other Names:
SCA Services Inc.

Site Description

The 70-acre Powell Road Landfill site is located in a former sand and gravel staging area. The site was first used to mine gravel before 1959, but was later used as a landfill for municipal and demolition waste. Only household refuse, construction waste, and other similar waste materials were licensed to be disposed of at the site, but the Ohio EPA and the Montgomery County Health Department found that liquid and industrial wastes also were accepted by the site's original operator. Residents in the area complained to the Ohio EPA about uncovered waste, exposed leachate and litter at the site, and odors. This prompted the State to investigate the site. The landfill was closed, capped, and sealed in 1985. Approximately 3,000 people live within a 1-mile radius of the site. The Great Miami River flows along the southern boundary of the site. The entire site is fenced, and a locking gate restricts access. Area drinking water is provided by public and private groundwater wells. Surface water runoff drains south toward the Great Miami River.

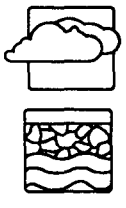
Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Air sampled on the site contains various volatile organic compounds (VOCs). Groundwater is contaminated with VOCs and phenols. The site currently poses little risk to public health; however, people potentially could be exposed to hazardous substances from the site by drinking or coming in direct contact with contaminated groundwater or by inhaling gases or contaminated dust particles in the air. People in the area use the Great Miami River Valley Aquifer as a source of drinking water. The contamination of this resource would increase the chances of exposure to contaminants by residents in the area who use it.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: The EPA and the Ohio EPA are supervising the study being conducted by the potentially responsible party. The purpose of the study is to examine the nature and extent of contamination at the site and to identify alternative remedies for cleaning up the site. The study is scheduled for completion in 1991. The following actions have been taken to date: (1) private residential wells were sampled to determine if site contamination had entered the local water supply; (2) samples of surface water, groundwater, and seeps at and near the landfill were collected; (3) soil and sediment samples were taken from locations at and around the site; (4) a soil gas survey was conducted; (5) landfill gas and gas-vent liquid were collected to determine what chemicals may be present in air at the site; and (6) an air monitoring survey of the surrounding area was performed to discover if gases leaving the landfill may cause a health problem for nearby residents. During 1990, monitoring wells were installed and additional groundwater samples were taken at the request of a citizen group.

Site Facts: SCA Services agreed to study contamination problems at the landfill. The EPA, the Ohio EPA, and SCA Services signed a Consent Order in 1987.

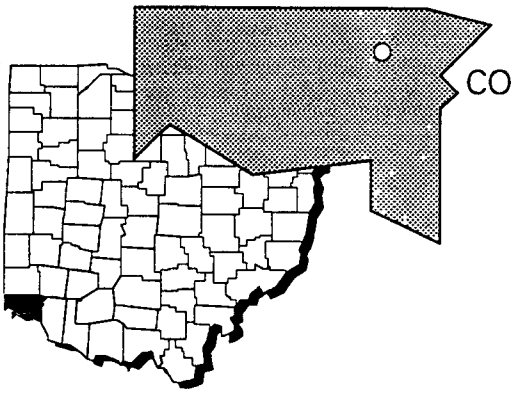
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Powell Road Landfill site while studies are taking place and cleanup activities are being planned.

PRISTINE, INC.

OHIO

EPA ID# OHD076773712



EPA REGION 5

CONGRESSIONAL DIST. 01

Hamilton County

Reading

Site Description

Pristine, Inc. began operating a liquid waste disposal facility at the location of a former sulfuric acid manufacturing plant on this 2-acre site in 1974. In 1977, the company obtained a permit allowing the operation of a liquid waste incinerator. From 1974 to 1981, a variety of acids, organic solvents, and waste products were received at the facility and subsequently were treated by incineration or acid neutralization and disposed of at the site. In 1979, an inspection revealed the presence of 8,000 to 10,000 drums and 13 bulk storage tanks containing a wide variety of hazardous substances. In 1981, the facility closed as a result of State enforcement actions. The City of Reading has a population of approximately 12,800. Eight municipal water supply wells serving the people of Reading are located 300 feet northwest of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 12/30/82

Final Date: 09/08/83

Threats and Contaminants

Groundwater is contaminated with volatile organic compounds (VOCs), phenols, and heavy metals including manganese, fluoride, and iron. Compounds detected in the soil and sediments include VOCs, polycyclic aromatic hydrocarbons (PAHs), heavy metals, and pesticides. Surface water contaminants include VOCs, PAHs, phenols, and heavy metals. The presence of trace levels of VOCs in groundwater does not present an immediate health risk to people. Other contaminants are present at levels low enough not to constitute a health concern. Contaminated runoff from the site to Mill Creek may pose a problem.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: From 1980 to 1983, Pristine, Inc., under the monitoring of the State, removed much of the waste at the site. In 1984, some of the parties potentially responsible for site contamination, under EPA monitoring, performed soil, sludge, sediment, and waste removal activities to address immediate hazardous site conditions.

Entire Site: In 1987, the EPA selected the following cleanup technologies to address both the soil and groundwater contamination: (1) treatment of the top one foot of soil across the site and all other soils from the present groundwater surface to four feet below the ground surface by in-situ vitrification, whereby the soil is electrically melted to bind the waste in a glassy solid material; (2) sediments and waste pit soils will be treated if necessary, and ash will be placed under an on-site cap if necessary; (3) performance of an additional groundwater investigation and extraction and treatment of the lower aquifer with wells, an air stripper, and carbon adsorption; (4) decontamination and demolition of on-site structures and disposal of debris in a sanitary landfill; (5) construction of a fence to restrict access; (6) implementation of deed restrictions to restrict land use; and (7) monitoring of groundwater flow and quality. In 1990, the EPA selected a new remedy to treat the contaminated soil by incineration and in-situ soil vapor extraction. The extraction process removes VOCs from the soil by placing a cover over the contaminated area and applying a vacuum to filter the contaminants from the soil particles. The design for the demolition of on-site structures is expected to be completed in mid-1991 by the potentially responsible parties, under EPA monitoring. All demolition activities are scheduled for completion in late 1991. The designs for the incinerator, the soil vapor extraction system, and the groundwater treatment system are scheduled to begin in summer 1991.

Site Facts: From 1980 to 1983, much of the on-site waste was removed in accordance with a Consent Decree entered into between the State and Pristine, Inc.

Environmental Progress

The removal of waste, soil, sludge, and sediment has greatly reduced the potential for exposure to hazardous substances at the Pristine, Inc. site while cleanup remedies are being planned.

REILLY TAR & CHEMICAL CORPORATION (DOVER PLANT)

OHIO

EPA ID# OHD980610042

EPA REGION 5
CONGRESSIONAL DIST. 18
Tuscarawas County
Dover

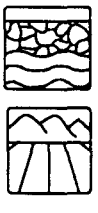
Site Description

The 4-acre Reilly Tar & Chemical Corporation (Dover Plant) site was operated from 1932 to 1956 as a coal tar refinery. During that time, coal tar wastes accumulated on the ground from spillage and other site activities. The site is situated on slag originally deposited by a local blast furnace. The site is currently inactive, is fenced, and is located on the sand and gravel deposits of the Tuscarawas River basin. The aquifer in the deposits is the sole source of drinking water for approximately 28,700 people served by the municipal water systems of Dover and New Philadelphia. An additional 4,000 people obtain drinking water from private wells within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 08/30/90

Threats and Contaminants



Groundwater and soil are contaminated with petrochemicals from coal tar wastes Potential health threats include accidentally ingesting or coming in direct contact with contaminated groundwater or soil. However, potential contact with hazardous substances is limited, because the site is fenced and is located in an industrial area.

Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Initial Actions: In 1988, the parties potentially responsible for site contamination, under EPA monitoring, installed a fence around the site. In 1990, they also removed surface coal tars from the site and took them to a hazardous waste landfill.

Entire Site: Under EPA monitoring, the potentially responsible parties currently are conducting an investigation into the nature and extent of contamination at the site. The investigation will define the contaminants and will recommend alternatives for the final cleanup. The investigation is scheduled to be completed in 1993.

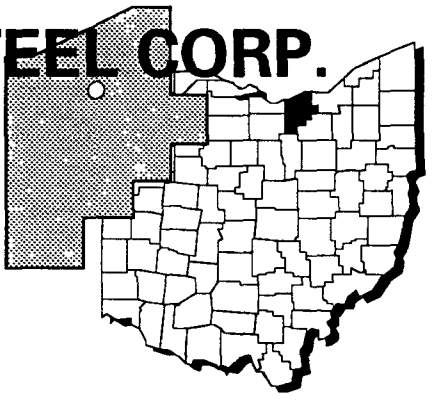
Environmental Progress

The installation of a fence and the removal of surface coal tars have greatly reduced the potential for exposure to contaminated materials at the Reilly Tar & Chemical Company site while studies are taking place and cleanup activities are being planned.

REPUBLIC STEEL CORP. QUARRY

OHIO

EPA ID# OHD980903447



EPA REGION 5
CONGRESSIONAL DIST. 13
Lorain County
Elyria

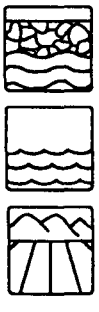
Site Description

The Republic Steel Quarry site consists of a 4-acre quarry containing water that is surrounded by 7 acres of fenced property. Prior to 1950, the site operated as a sandstone quarry. The site then was used for the disposal of spent pickle liquor. Pickle liquor is an acid used to dissolve oxides in the mill scale that forms on steel during the hot rolling process. Sulfuric acid was used as the pickling acid at this facility. From 1950 to 1972, approximately 200,000 gallons of waste pickle liquor were discharged into the quarry each year. Waste pickle liquor reportedly was pumped through an aboveground pipe to a ditch located on the eastern side of the plant. The ditch routed the liquid north to the quarry. Beginning in 1969, the operators stopped discharging the pickle liquor into the quarry, and it was hauled off site. From 1969 to 1975, the ditch continued to be used to direct wastewater from the plant to the quarry. In 1976, the ditch was dammed. The site, although fenced, is still accessible. Approximately 60,000 people live within 3 miles of the site. The City of Elyria Water Company supplies treated water for all water users within 3 miles of the quarry, except for 360 homes. Of these 360 homes, 150 are served by the Rural Lorain County Water Authority. Both of the water companies obtain their water supplies from Lake Erie. The remaining 210 homes obtain water from private wells. Two residential wells are within 1 mile of the site. Both the on-site quarry and the Black River are used for recreational purposes.

Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/12/86

Threats and Contaminants



Groundwater and surface water were contaminated with heavy metals including barium, manganese, and iron. Groundwater still contains beryllium. Quarry sediments were contaminated with volatile organic compounds (VOCs), heavy metals, and phthalates. Heavy metals, phthalates, oil and grease, and pyrene were contaminating the soil. Health risks included accidentally ingesting or coming in direct contact with contaminated groundwater, surface water, soil, or sediments.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: In 1988, the EPA selected the following cleanup technologies to address soil contamination: excavation of contaminated surface soil from the pickle liquor discharge ditch and the southern end of the quarry; disposal of excavated soil; a five-year monitoring plan including a fish species survey and fish tissue study to ensure the absence of contaminants; and groundwater monitoring. Approximately 130 cubic yards of contaminated soil were removed and disposed of in a regulated hazardous waste landfill. Groundwater was resampled and fish tissue samples were collected to better assess risks at the site. The EPA and the State are in the process of determining if the presence of beryllium in the groundwater at the site warrants any further action. The site is planned for deletion from the NPL. The extent of the contamination and the likelihood that the groundwater will be used as a potable water source will be evaluated before deletion can proceed.

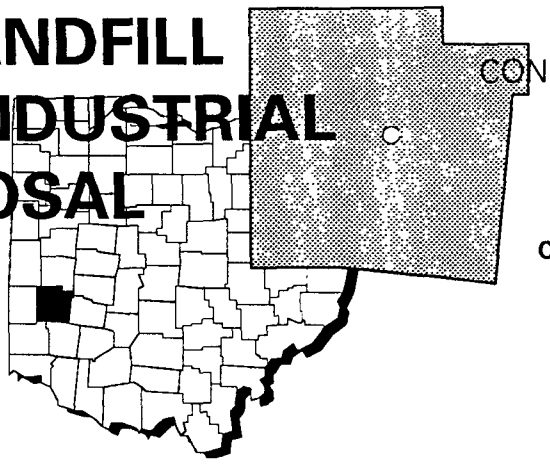
Environmental Progress

All planned cleanup activities have been completed, and contaminated soils at the site have been safely removed. The EPA currently is in the process of evaluating the cleanup activities performed at the Republic Steel Quarry to ensure that any future usage of the site does not pose a risk to human health and the environment. The site is scheduled to be deleted from the NPL by fall 1991.

SANITARY LANDFILL COMPANY (INDUSTRIAL WASTE DISPOSAL CO., INC.)

OHIO

EPA ID# OHD093895787



EPA REGION 5
CONGRESSIONAL DIST. 03
Montgomery County
Dayton

Other Names:
Cardington Road Landfill

Site Description

The 50-acre Sanitary Landfill Company (Industrial Waste Disposal Co., Inc.) site was operated as a landfill from 1965 to 1980. The landfill reportedly accepted municipal wastes and various types of industrial wastes including solvents. In 1980, the landfill was closed according to State regulations. No waste material is being exposed, due to a cap that was installed. Approximately 6,500 people live within 3 miles of the site. The closest residence is located less than 150 feet from the site. Approximately 125,000 people draw drinking water from wells within 3 miles of the site. Municipal wells within the vicinity of the site are not contaminated, and private wells within the vicinity of the site are not used for potable purposes. The Great Miami River is located near the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants

Groundwater is contaminated with solvents and heavy metals including chromium, copper, cadmium, and lead. The soil contains solvents, asbestos, and the heavy metals chromium, copper, cadmium, and lead. Potential health risks to people include accidentally ingesting or coming in direct contact with contaminated soil. There also is the possibility of a health risk associated with consuming contaminated animals and agricultural products. Access to the site is restricted by a fence.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: The parties potentially responsible for site contamination currently are conducting a study of the nature and extent of contamination at the site. The study will define the contaminants and will recommend alternatives for the final cleanup; it is planned to be completed in 1992.

Site Facts: In 1987, the EPA and a group of potentially responsible parties signed a Consent Order requiring the parties to conduct an investigation of the nature and extent of site contamination.

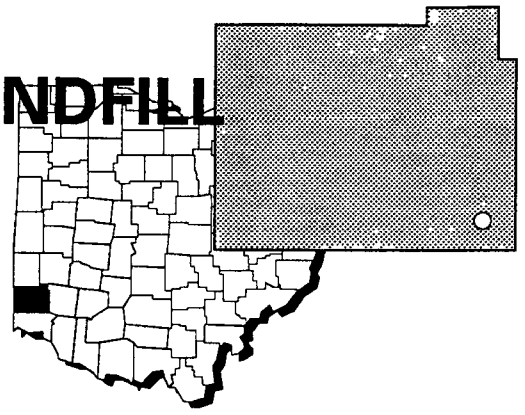
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Sanitary Landfill Company site while studies are taking place and cleanup activities are being planned.

SKINNER LANDFILL

OHIO

EPA ID# OHD063963714



EPA REGION 5

CONGRESSIONAL DIST. 08

Butler County

West Chester

Site Description

The 78-acre Skinner Landfill site is located on a ridge above the east fork of Mill Creek in West Chester. The landfill accepted hazardous and demolition wastes since the late 1950s. The actual landfill area covers approximately 10 acres and includes a lagoon less than 1 acre in size, containing hazardous waste and approximately 100 drums of solvents, pesticides, and heavy metals. Approximately 40 feet of demolition material is on top of this lagoon. Demolition waste was accepted until July 1990. The remaining 60 acres of the site contain scrap metal, the owner's residence, and buildings used by the owner for his general contracting business. Approximately 3,000 people live within 3 miles of the site. On-site residences use groundwater upgradient from the landfill area for drinking water. The majority of off-site residences are connected to a municipal water supply.

Site Responsibility: The site is being addressed through Federal actions.

NPL LISTING HISTORY

Proposed Date: 12/30/82

Final Date: 09/08/83

Threats and Contaminants

Liquid sludge in the on-site lagoon is contaminated with heavy metals including cyanide, cadmium, and chromium. Potential health threats include accidental ingestion of and direct contact with contaminated liquid sludge.

Cleanup Approach

The site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: The EPA is conducting an investigation into the nature and extent of surface water, groundwater, soil, and sediment contamination. The investigation has defined the contaminants of concern and will recommend effective alternatives for the final cleanup. The investigation is expected to be completed in the summer of 1991.

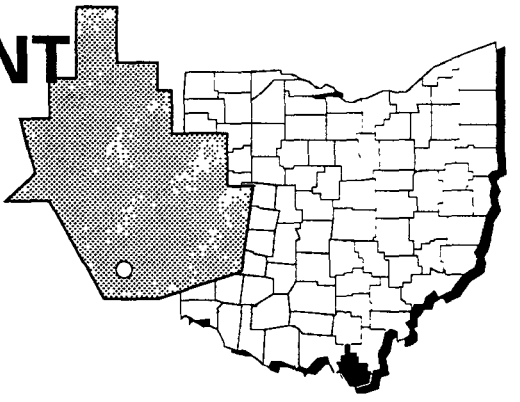
Environmental Progress

An initial evaluation of the Skinner Landfill site determined that no immediate actions are needed while the investigation leading to the selection of final cleanup remedies continues. Results of current site investigations indicate that the chances for off-site contaminant migration are limited.

SOUTH POINT PLANT

OHIO

EPA ID# OHD071650592



EPA REGION 5

CONGRESSIONAL DIST. 10

Lawrence County

South Point

Other Names:
Allied Chemical Ethanol Plant
Ashland Oil South Point Facility

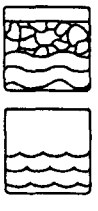
Site Description

The 75-acre South Point Plant site is an active ethanol producing facility. Ammonia, fertilizer, and formaldehyde were produced on site from 1943 to 1979. The Federal government began operations at the site in 1943 with the production of chemicals used in explosives. The Allied Chemical Corporation operated the plant for the military until 1946, when the company purchased the property. From 1946 until the plant closed in 1979, Allied Chemical produced chemicals used for agricultural and other purposes. In 1982, South Point Ethanol built an ethanol production plant and began operations on the site. Several unlined landfills, covering approximately 20 acres, and surface impoundments were used for process waste disposal. The landfills were closed in 1979, and one is eroding. Numerous activities have contributed to groundwater contamination. In the late 1950s, a large volume of water used to extinguish a fire in the ammonium nitrate building caused two surface water runoffs. In 1971, an on-site spill of 300,000 gallons of ammonium nitrate occurred. Access to the site is unrestricted. Approximately 65,000 people live within 3 miles of the site. The site is located on the eastern flood plain of the Ohio River. Surface water from the facility drains to the Ohio River through Solida Creek or the surface water drainage system. The intake for the Ashland, Kentucky municipal water supply is located on the Ohio River a mile downstream from the site. The Village of South Point draws its water supply from two well fields, one of which is located between the site and the Ohio River. The underlying aquifer that supplies potable water to the Village of South Point is contaminated.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



Groundwater is contaminated with heavy metals including iron and manganese, as well as chloride, nitrate, and sulfate. Surface water is contaminated with nitrate and manganese. Potential health threats include drinking or coming in direct contact with contaminated groundwater and surface water and eating contaminated fish, animals, and plants.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: The parties potentially responsible for site contamination currently are conducting an investigation into the nature and extent of site contamination. The investigation will define the contaminants and will recommend alternatives for the final cleanup. The ongoing investigation is planned to be completed in 1991 and includes the following activities: (1) a review of data from historical photographs, maps, and reports to define the extent of the former disposal areas; (2) an expanded investigation of portions of the disposal areas, fly ash ponds, and soils surrounding these areas; and (3) sampling for gases within the soils in and near the disposal areas and fly ash ponds.

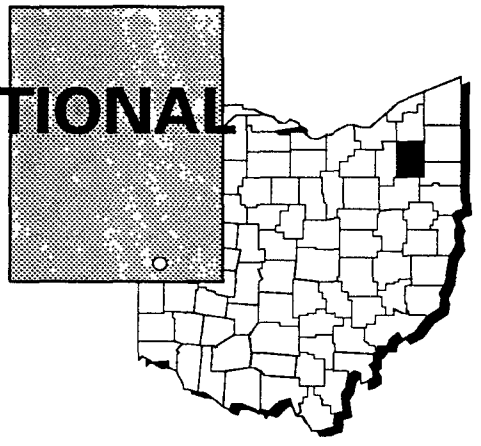
Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the South Point Plant site while investigations are taking place and cleanup activities are being planned.

SUMMIT NATIONAL

OHIO

EPA ID# OHD980609994



EPA REGION 5
CONGRESSIONAL DIST. 11
Portage County
Deerfield

Site Description

The 115-acre Summit National site is located on a former coal strip mine containing a coal wash pond and a coal stock pile. From 1974 to 1978, the site was used as a waste disposal facility and received such wastes as oils, resins, paint and metal plating sludges, flammable solvents, and chlorinated solvents. In addition, two surface water ponds and an incinerator were located on site. The facility received liquid wastes, which were stored in drums, an open pit, or bulk tanks. Some wastes were incinerated, others were buried, and some were dumped on the soil. In 1975, the Ohio EPA investigated a complaint of unauthorized discharge from the site. In 1978, the facility was ordered to stop receiving waste materials and to remove all liquid wastes from the site. In 1979, surface water monitoring revealed violations of State water quality standards. Approximately 4,500 people live within 3 miles of the site. There are several agricultural fields located within a few thousand feet of the site. Berlin Lake Reservoir is located about 1 mile southeast of the site. The site is enclosed by a fence with locked gates.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/22/81
Final Date: 09/08/83

Threats and Contaminants

The groundwater is contaminated with various volatile organic compounds (VOCs), phenols, and phthalates. VOCs, phenols, and heavy metals including cadmium and antimony are contaminating the soil. The surface water is contaminated with VOCs, phenols, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and heavy metals including arsenic and chromium. The contaminated groundwater, soil, and surface water could pose a health problem if accidentally directly contacted or swallowed. The Berlin Lake Reservoir is a standby water supply for the City of Youngstown. The reservoir is threatened, because a contaminated waste lagoon overflowed into the tributary of the reservoir.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1980, the EPA removed contaminated materials that threatened the Berlin Reservoir. Also, drums, tanks, various surface debris, and a small amount of contaminated surface soil were collected and shipped off site. All drums, bulk containers, and the concrete block pit were emptied and removed. A slope was built on the site to control the stormwater runoff. In 1987, the EPA contained a threatened release of hazardous materials by treating liquid wastes in ponds that were threatening to overflow, recovering and disposing of an underground storage tank, increasing the freeboard, strengthening the dikes around the pond, and excavating the underground tank. Contaminated soils were stored on site and will be treated in the final stages of cleanup operations.

Entire Site: The parties potentially responsible for the contamination will assume the responsibility of site cleanup. The selected cleanup remedies for this site include: (1) excavation and on-site incineration of approximately 24,000 cubic yards of contaminated soil and sediments and the contents of approximately 1,600 buried drums and 4 tanks, with disposal of incinerator residuals in a federally approved landfill; (2) groundwater pumping and treatment using a trench system and extraction well system; (3) surface water treatment on site; (4) discharge of treated water to downslope surface water; (5) installation of a permeable cap over the site with regrading and revegetation; (6) dismantling and on-site disposal of all on-site structures; (7) access and deed restrictions to restrict land uses; and (8) groundwater and surface water monitoring and residence relocation. The design of the cleanup activities is scheduled to begin in 1991.

Site Facts: In 1981, the State and the potentially responsible parties reached an agreement to undertake a surface cleanup of the site.

Environmental Progress

The removal of contaminated materials, control of runoff, treatment of liquid wastes, and the strengthening of the dikes by the EPA have greatly reduced the potential of exposure to hazardous materials at the Summit National Liquid Disposal Services site while cleanup activities are being planned.

TRW, INC. (MINERVA PLANT)

OHIO

EPA ID# OHD004179339

EPA REGION 5
CONGRESSIONAL DIST. 16
Stark County
Minerva

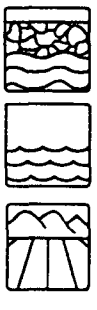
Site Description

The 54-acre TRW, Inc. (Minerva Plant) site is a manufacturing facility that has been sold to PCC Airfoils, Inc. However, the TRW Corporation still owns land near its former plant in order to conduct waste management and treatment of the contamination associated with its past disposal practices. The facility was used for metal casting, in which volatile organic compounds (VOCs) were used as degreasers. The spent degreasing materials were discharged directly to the Wax Ditch, which flowed into the South Pond. Dredged material from South Pond and Wax Ditch also was deposited on the Rubble Pile. Minerva city wells are located approximately 1 mile southwest and downslope from the TRW building. The wells draw water from a sand and gravel aquifer, the same aquifer that underlies the TRW property. These wells serve approximately 4,550 people. Within 3 miles of the site are shallow residential wells serving approximately 900 people. The nearest residential well is 925 feet from the TRW plant.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/10/86
Final Date: 03/31/89

Threats and Contaminants



The groundwater, sediments, and soil are contaminated with polychlorinated biphenyls (PCBs) and VOCs and could pose a health hazard if they are accidentally directly contacted or swallowed.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Actions: In 1985, the potentially responsible parties hooked up all residences with contaminated wells to municipal drinking water supplies. In 1985, contaminated soils and sediments from the former disposal areas were excavated and disposed of in an on-site secured landfill. A PCB vault was built on the site to secure excavated toxic materials, and a soil cap was placed over the concrete-lined vault. TRW excavated the soils and sediments for placement in the vault.

Groundwater: In 1986, the parties potentially responsible for the contamination started operating a system that pumps contaminated groundwater to the surface, treats it with an air stripper, and discharges the treated water to the Sandy Creek. The groundwater treatment system is currently operating. It is estimated that the cleanup process will take more than 30 years.

Site Facts: In 1985, the State issued an Administrative Order on Consent to the potentially responsible parties, requiring that the parties clean up the groundwater.

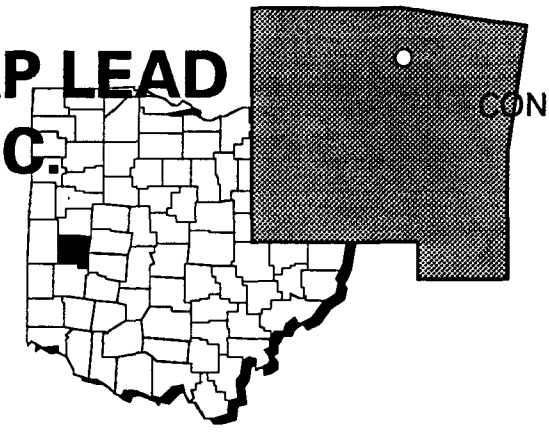
Environmental Progress

The provision of an alternate water supply, disposal of contaminated soils, securing of toxic materials, and placement of a cap, plus the operation of the groundwater treatment system have eliminated the potential for exposure to contaminated materials at the TRW, Inc. (Minerva Plant) site. Cleanup goals for surface contamination have been met. Groundwater treatment will continue at the site until established cleanup goals are met.

UNITED SCRAP LEAD COMPANY, INC.

OHIO

EPA ID# OHD018392928



EPA REGION 5
CONGRESSIONAL DIST. 04
Miami County
Troy

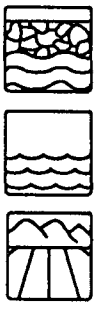
Site Description

From 1948 until 1980, the 25-acre United Scrap Lead site was used to reclaim lead batteries. An estimated 32,000 cubic yards of crushed battery cases were generated and used as fill material. The battery acid and the rinse water were disposed of in an infiltration pit. Beginning in 1972, the acid was neutralized with ammonia prior to discharge into the pit. In 1974, the State recommended implementing a more effective on-site treatment system. United Scrap Lead did not implement the suggested treatment because operations ceased, and the facility was closed shortly thereafter. Monitoring wells on site are contaminated with lead. The site is partially fenced and consists of three general areas: an open flat area occupying the northern half of the site, a wooded area in the southeastern quarter of the site, and the southwestern quarter of the site where the offices, process buildings, and waste disposal areas are located. Forming the southern boundary of the site is a ditch that flows into the Miami River and serves as a major drainage route for runoff for much of Troy and the surrounding area. A residential garden is located adjacent to the site. There also is a migrant worker population associated with commercial activity in the area. The nearest Troy public water supply well is located approximately 2 miles upgradient of the site.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



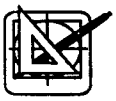
The groundwater is contaminated with lead, but the concentration does not exceed primary drinking water standards. Sediments and surface water also are contaminated with lead; soil contains lead and arsenic. The contaminated soil, surface water, groundwater, and sediments could pose a health threat if they are accidentally directly contacted or ingested. Also, since the site is located in the Miami River flood plain, there is a possibility of the site contaminating the river.

Cleanup Approach

This site is being addressed in two stages: emergency actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Emergency Actions: In 1985, the EPA excavated contaminated soil and battery casings from the western portion of the site and moved them away from nearby residents to the interior of the site.

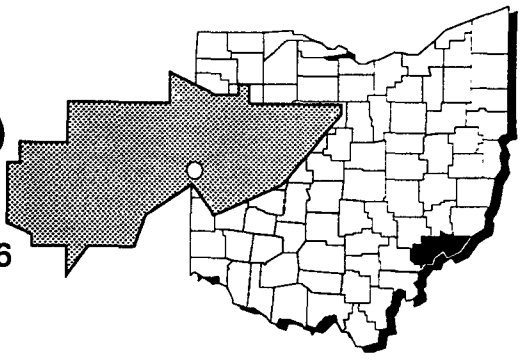


Entire Site: In 1988, the EPA selected the following remedies for the site cleanup: (1) excavating and treating soil and battery casings by washing, with lead recovery and off-site disposal or recycling of casing residues and replacement of cleaned residual soil on site; (2) dewatering tributary sediments, followed by on-site disposal with treated soil; (3) constructing a soil cover over treated material and revegetating the area; (4) decontaminating buildings and debris, followed by off-site disposal; (5) installing a new residential well; (6) imposing deed restrictions; and (7) monitoring groundwater and surface water. The EPA is expected to complete the design specifications for the cleanup in 1992.

Environmental Progress

The excavation and removal of contaminated soil and battery casings have greatly reduced the potential for exposure to contaminated materials at the United Scrap Lead site while cleanup activities are being planned.

VAN DALE JUNKYARD
OHIO
EPA ID# OHD980794606



EPA REGION 5
CONGRESSIONAL DIST. 10
Washington County
1 1/2 miles northeast of Marietta

Other Names:
Vandalis Junkyard

Site Description

The 10-acre Van Dale Junkyard is a licensed facility that accepted hundreds of drums for salvage, some of which contained such materials as waste dyes and organic solvents. Wastes from the drums were disposed of through open burning, direct dumping onto soils, and burial. The small stream draining the site and an adjacent marshy area are contaminated with volatile organic compounds (VOCs) and heavy metals. Approximately 10,000 people live within 2 miles of the site. Area surface waters are used for recreation, while residents rely on groundwater from both private wells and a public water system for water supply.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 06/10/86

Threats and Contaminants

Off-site sediments and on-site soils have been contaminated with polycyclic aromatic hydrocarbons (PAHs), phthalates, and VOCs. On-site sludge is contaminated with various VOCs. People may be exposed to a health threat if they accidentally ingest or come in direct contact with contaminated materials. Site geology has contributed to contamination reaching adjacent streams and a nearby marshy area.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: The EPA is conducting an investigation of the Van Dale Junkyard, which will identify the types and extent of site pollutants. At the conclusion of the study, scheduled for 1992, alternatives for site cleanup will be recommended.

Site Facts: In 1984, the owner of the site agreed not to accept solid and hazardous wastes and to stop filling, grading, excavating, or burning wastes.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Van Dale Junkyard site while studies are taking place and cleanup activities are being planned.

WRIGHT-PATTERSON AIR FORCE BASE

OHIO

EPA ID# OH7571724312

EPA REGION 5

CONGRESSIONAL DIST. 07

Greene County

Northeast of Dayton

Other Names:
USAF Wright-Patterson

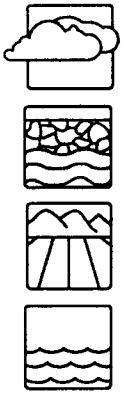
Site Description

The 8,511-acre Wright-Patterson Air Force Base is the headquarters for the Air Force Logistics Command and includes the Aeronautical Systems Division and the Air Force Institute of Technology, as well as a medical center. Past Air Force activities in support of operational missions have resulted in the creation of several unlined waste disposal areas throughout the base, including landfills, fire training areas, and coal storage piles. From 1941 to 1973, the Industrial Shops and the Research and Development Laboratories disposed of more than 6,600 tons of waste on the base, including solvents, contaminated thinners, degreasing sludges, and miscellaneous hazardous chemicals. The base employs approximately 32,000 people and 8,000 people live on the base. The Buried Valley Aquifer, which is the predominant water source in the Dayton and Wright-Patterson area, provides water to three municipal well fields within 3 miles of the site. These wells serve more than 375,000 people. The people working and living on the base are served by 16 base wells.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 10/04/89

Threats and Contaminants



Air releases from the site contain methane. Contaminants identified in the groundwater and leachate include volatile organic compounds (VOCs). Surface water and sediments contain lead and polycyclic aromatic hydrocarbons (PAHs). Methane may be migrating through soils to nearby housing, and concentrations in the soil at some landfills are above explosive levels for methane. Residents threatened by the contaminated soil are being relocated to other housing on base. Previous radiological analyses show elevated alpha and beta radiation in leachate. A plume of VOC-contaminated groundwater is migrating off base toward the City of Dayton's well field.

Cleanup Approach

This site is being addressed in 14 stages: emergency actions and 13 long-term remedial phases focusing on cleanup of landfills 8 & 10; spill sites 2 & 3 and coal and chemicals storage area; landfills 11, 12, & 14; fire training areas 3 & 4 and spill site 1; landfill 5, fire training area 1, and Gravel Lake tanks; landfills 3, 4, 6, and 7; Building 4020 underground storage tank BS-2 and chemical disposal area; and seven additional phases beginning within the next two years. Additional phases will be defined as the investigation proceeds.

Response Action Status

Emergency Actions: Base residents near one landfill are being relocated, due to the unstable nature of high levels of methane in the soil. Sixteen base wells use air strippers to remove contamination. However, the air strippers currently are not in operation due to mechanical problems. Even so, the drinking water has remained safe. Approximately 400 drums were removed from various landfills, and the recovery of free product at a fuel spill site has begun. Based on the results of a study completed in 1990, the Air Force will begin construction of a pump and treat system for VOCs in the groundwater in the summer of 1991. Further investigations will follow.

Landfills 8 & 10: The Air Force began an investigation to determine the type and extent of contamination at these landfills in 1990. At the conclusion of the investigation in 1993, recommendations will be made for cleaning up the site. A temporary leachate collection system has been installed.

Spill Sites 2 & 3 and Coal and Chemicals Storage Area: The Air Force plans to begin a study to determine the nature and extent of contamination and to identify cleanup alternatives. Field work is expected to begin in late 1991.

Landfills 11, 12, & 14, Fire Training Areas 3 & 4, and Spill Site 1: The Air Force is expected to begin a study to determine the nature and extent of contamination and to identify cleanup alternatives in 1992.

Landfill 5, Fire Training Area 1, and Gravel Lake Tanks: In 1991, the Air Force is expected to begin studies to investigate the extent and nature of contamination and to identify cleanup alternatives.

Landfills 3, 4, 6, & 7: In 1991, the Air Force is expected to begin a study to investigate the extent and nature of contamination and to identify cleanup alternatives.

Building 4020 Underground Storage Tank BS-2 and Chemical Disposal Area: In 1991, the Air Force is expected to begin studies to investigate the extent and nature of contamination and to identify cleanup alternatives.

Site Facts: Wright-Patterson Air Force Base is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DoD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DoD facilities. An Interagency Agreement with the base to oversee studies and implementation of selected remedies was executed on March 21, 1991.

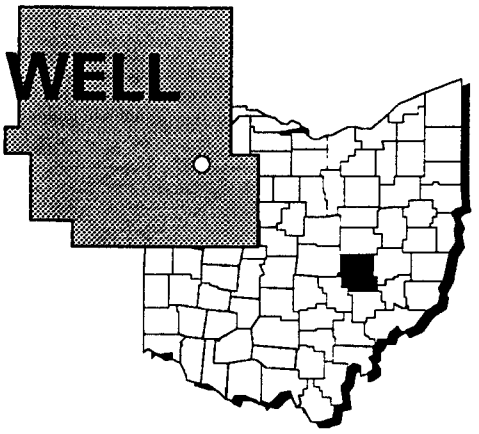
Environmental Progress

The relocation of residents will reduce the potential for exposure to explosive gases at the Wright-Patterson Air Force Base site while studies leading to the selection of final cleanup activities are taking place.

ZANESVILLE WELL FIELD

OHIO

EPA ID# OHD980794598



EPA REGION 5
CONGRESSIONAL DIST. 10
Muskingum County
Northeast of Zanesville

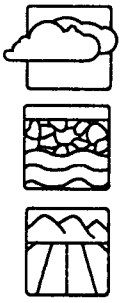
Site Description

The 1-acre Zanesville Well Field site supplies water to the City of Zanesville and is adjacent to the Muskingum River. In 1981, the State found that three of the 13 production wells were highly contaminated. A groundwater study conducted by the EPA identified trichloroethylene (TCE) as a primary contaminant. The City took the three contaminated wells out of service and began flushing to remove contaminants remaining in the water lines. By 1982, the contaminated wells still were not in use, but were being continually pumped to reduce the contamination and to prevent its further migration into the well field. A nearby production well also was not in use because of the danger of contamination. The City conducts a regular monitoring program at the site. A neighboring industry, after studying its operation, began to excavate buried wastes and to treat local groundwater. Approximately 40,000 people reside within 3 miles of the site. Fourteen city wells supply water to the population.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants



The air contains volatile organic compounds (VOCs). The groundwater also is contaminated with VOCs. The soil contains VOCs and some heavy metals. Accidentally ingesting or coming in direct contact with groundwater or soil could pose a potential health threat. Inhaling contaminated airborne vapors also may be a health threat.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Entire Site: An investigation to determine the nature and extent of contamination and to identify alternatives for final cleanup currently is taking place. The investigation is expected to be completed in late 1991.

Environmental Progress

After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Zanesville Well Field site while studies are taking place and cleanup activities are being planned.

Glossary: Terms Used in the Fact Sheets

Terms Used in the NPL Book

This glossary defines terms used throughout the NPL Volumes. The terms and abbreviations contained in this glossary apply specifically to work performed under the Superfund program in the context of hazardous waste management. These terms may have other meanings when used in a different context.

Acids: Substances, characterized by low pH (less than 7.0), that are used in chemical manufacturing. Acids in high concentration can be very corrosive and react with many inorganic and organic substances. These reactions possibly may create toxic compounds or release heavy metal contaminants that remain in the environment long after the acid is neutralized.

Administrative Order On Consent: A legal and enforceable agreement between the EPA and the parties potentially responsible for site contamination. Under the terms of the Order, the potentially responsible parties (PRPs) agree to perform or pay for site studies or cleanups. It also describes the oversight rules, responsibilities, and enforcement options that the government may exercise in the event of non-compliance by potentially responsible parties. This Order is signed by PRPs and the government; it does not require approval by a judge.

Administrative Order [Unilateral]: A legally binding document issued by the EPA, directing the parties potentially responsible to perform site cleanups or studies (generally, the EPA does not issue Unilateral Orders for site studies).

Aeration: A process that promotes breakdown of contaminants in soil or water by exposing them to air.

Agency for Toxic Substances and Disease Registry (ATSDR): The Federal agency within the U.S. Public Health Service charged with carrying out the health-related responsibilities of CERCLA.

Air Stripping: A process whereby volatile organic chemicals (VOCs) are removed from contaminated material by forcing a stream of air through it in a pressurized vessel. The contaminants are evaporated into the air stream. The air may be further treated before it is released into the atmosphere.

Ambient Air: Any unconfined part of the atmosphere. Refers to the air that may be inhaled by workers or residents in the vicinity of contaminated air sources.

Aquifer: An underground layer of rock, sand, or gravel capable of storing water within cracks and pore spaces, or between grains. When water contained within an aquifer is of sufficient quantity and quality, it can be tapped and used for drinking or other purposes. The water contained in the aquifer is called groundwater. A sole source aquifer supplies 50% or more of the drinking water of an area.

Artesian (Well): A well made by drilling into the earth until water is reached, which, from internal pressure, flows up like a fountain.

GLOSSARY

Attenuation: The naturally occurring process by which a compound is reduced in concentration over time through adsorption, degradation, dilution, and/or transformation.

Background Level: The amount of a substance typically found in the air, water, or soil from natural, as opposed to human, sources.

Baghouse Dust: Dust accumulated in removing particulates from the air by passing it through cloth bags in an enclosure.

Bases: Substances characterized by high pH (greater than 7.0), which tend to be corrosive in chemical reactions. When bases are mixed with acids, they neutralize each other, forming salts.

Berm: A ledge, wall, or a mound of earth used to prevent the migration of contaminants.

Bioaccumulate: The process by which some contaminants or toxic chemicals gradually collect and increase in concentration in living tissue, such as in plants, fish, or people, as they breathe contaminated air, drink contaminated water, or eat contaminated food.

Biological Treatment: The use of bacteria or other microbial organisms to break down toxic organic materials into carbon dioxide and water.

Bioremediation: A cleanup process using naturally occurring or specially cultivated microorganisms to digest contaminants and break them down into non-hazardous components.

Bog: A type of wetland that is covered with peat moss deposits. Bogs depend primarily on moisture from the air for their water source, are usually acidic, and are rich in plant residue [see Wetland].

Boom: A floating device used to contain oil floating on a body of water or to restrict the potential overflow of waste liquids from containment structures.

Borehole: A hole that is drilled into the ground and used to sample soil or groundwater.

Borrow Pit: An excavated area where soil, sand, or gravel has been dug up for use elsewhere.

Cap: A layer of material, such as clay or a synthetic material, used to prevent rainwater from penetrating and spreading contaminated materials. The surface of the cap generally is mounded or sloped so water will drain off.

Carbon Adsorption: A treatment system in which contaminants are removed from groundwater and surface water by forcing water through tanks containing activated carbon, a specially treated material that attracts and holds or retains contaminants.

Carbon Disulfide: A degreasing agent formerly used extensively for parts washing. This compound has both inorganic and organic properties, which increase cleaning efficiency. However, these properties also cause chemical reactions that increase the hazard to human health and the environment.

Carbon Treatment: [see Carbon Adsorption].

Cell: In solid waste disposal, one of a series of holes in a landfill where waste is dumped, compacted, and covered with layers of dirt.

CERCLA: [see Comprehensive Environmental Response, Compensation, and Liability Act].

Characterization: The sampling, monitoring, and analysis of a site to determine the

extent and nature of toxic releases. Characterization provides the basis for acquiring the necessary technical information to develop, screen, analyze, and select appropriate cleanup techniques.

Chemical Fixation: The use of chemicals to bind contaminants, thereby reducing the potential for leaching or other movement.

Chromated Copper Arsenate: An insecticide/herbicide formed from salts of three toxic metals: copper, chromium, and arsenic. This salt is used extensively as a wood preservative in pressure-treating operations. It is highly toxic and water-soluble, making it a relatively mobile contaminant in the environment.

Cleanup: Actions taken to eliminate a release or threat of release of a hazardous substance. The term "cleanup" sometimes is used interchangeably with the terms remedial action, removal action, response action, or corrective action.

Closure: The process by which a landfill stops accepting wastes and is shut down, under Federal guidelines that ensure the protection of the public and the environment.

Comment Period: A specific interval during which the public can review and comment on various documents and EPA actions related to site cleanup. For example, a comment period is provided when the EPA proposes to add sites to the NPL. There is minimum 3-week comment period for community members to review and comment on the remedy proposed to clean up a site.

Community Relations: The EPA effort to establish and maintain two-way communication with the public. Goals of community relations programs include creating an understanding of EPA programs and related actions, assuring public input into decision-making processes related to affected communities, and making certain that the Agency is aware of, and responsive to, public concerns. Specific community relations activities are required in relation to Superfund cleanup actions [see Comment Period].

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): Congress enacted the CERCLA, known as Superfund, in 1980 to respond directly to hazardous waste problems that may pose a threat to the public health and the environment. The EPA administers the Superfund program.

Confluence: The place where two bodies of water, such as streams or rivers, come together.

Consent Decree: A legal document, approved and issued by a judge, formalizing an agreement between the EPA and the parties potentially responsible for site contamination. The decree describes cleanup actions that the potentially responsible parties are required to perform and/or the costs incurred by the government that the parties will reimburse, as well as the roles, responsibilities, and enforcement options that the government may exercise in the event of non-compliance by potentially responsible parties. If a settlement between the EPA and a potentially responsible party includes cleanup actions, it must be in the form of a Consent Decree. A Consent Decree is subject to a public comment period.

Consent Order: [see Administrative Order on Consent].

Containment: The process of enclosing or containing hazardous substances in a structure, typically in a pond or a lagoon, to prevent the migration of contaminants into the environment.

GLOSSARY

Contaminant: Any physical, chemical, biological, or radiological material or substance whose quantity, location, or nature produces undesirable health or environmental effects.

Contingency Plan: A document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or other accident that releases toxic chemicals, hazardous wastes, or radioactive materials into the environment.

Cooperative Agreement: A contract between the EPA and the States, wherein a State agrees to manage or monitor certain site cleanup responsibilities and other activities on a cost-sharing basis.

Cost Recovery: A legal process by which potentially responsible parties can be required to pay back the Superfund program for money it spends on any cleanup actions [see Potentially Responsible Parties].

Cover: Vegetation or other material placed over a landfill or other waste material. It can be designed to reduce movement of water into the waste and to prevent erosion that could cause the movement of contaminants.

Creosotes: Chemicals used in wood preserving operations and produced by distillation of tar, including polycyclic aromatic hydrocarbons and polynuclear aromatic hydrocarbons [see PAHs and PNAs]. Contaminating sediments, soils, and surface water, creosotes may cause skin ulcerations and cancer through prolonged exposure.

Culvert: A pipe used for drainage under a road, railroad track, path, or through an embankment.

Decommission: To revoke a license to operate and take out of service.

Degradation: The process by which a chemical is reduced to a less complex form.

Degrease: To remove grease from wastes, soils, or chemicals, usually using solvents.

De minimis: This legal phrase pertains to settlements with parties who contributed small amounts of hazardous waste to a site. This process allows the EPA to settle with small, or *de minimis* contributors, as a single group rather than as individuals, saving time, money, and effort.

Dewater: To remove water from wastes, soils, or chemicals.

Dike: A low wall that can act as a barrier to prevent a spill from spreading.

Disposal: Final placement or destruction of toxic, radioactive, or other wastes; surplus or banned pesticides or other chemicals; polluted soils; and drums containing hazardous materials. Disposal may be accomplished through the use of approved secure landfills, surface impoundments, land farming, deep well injection, or incineration.

Downgradient: A downward hydrologic slope that causes groundwater to move toward lower elevations. Therefore, wells *downgradient* of a contaminated groundwater source are prone to receiving pollutants.

Effluent: Wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

Emission: Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities.

Emulsifiers: Substances that help in mixing materials that do not normally mix; e.g., oil and water.

Endangerment Assessment: A study conducted to determine the risks posed to public health or the environment by contamination at NPL sites. The EPA or the State conducts the study when a legal action is to be taken to direct the potentially responsible parties to clean up a site or pay for the cleanup. An endangerment assessment supplements an investigation of the site hazards.

Enforcement: EPA, State, or local legal actions taken against parties to facilitate settlements; to compel compliance with laws, rules, regulations, or agreements; and/or to obtain penalties or criminal sanctions for violations. Enforcement procedures may vary, depending on the specific requirements of different environmental laws and related regulatory requirements. Under CERCLA, for example, the EPA will seek to require potentially responsible parties to clean up a Superfund site or pay for the cleanup [see Cost Recovery].

Erosion: The wearing away of land surface by wind or water. Erosion occurs naturally from weather or surface runoff, but can be intensified by such land-related practices as farming, residential or industrial development, road building, or timber-cutting. Erosion may spread surface contamination to offsite locations.

Estuary (estuarine): Areas where fresh water from rivers and salt water from nearshore ocean waters are mixed. These areas may include bays, mouths of rivers, salt marshes, and lagoons. These water ecosystems shelter and feed marine life, birds, and wildlife.

Evaporation Ponds: Areas where sewage sludge or other watery wastes are dumped and allowed to dry out.

Feasibility Study: The analysis of the potential cleanup alternatives for a site. The feasibility study usually starts as soon as the remedial investigation is underway; together, they are commonly referred to as the RI/FS [see Remedial Investigation].

Filtration: A treatment process for removing solid (particulate) matter from water by passing the water through sand, activated carbon, or a man-made filter. The process is often used to remove particles that contain contaminants.

Flood Plain: An area along a river, formed from sediment deposited by floods. Flood plains periodically are innundated by natural floods, which can spread contamination.

Flue Gas: The air that is emitted from a chimney after combustion in the burner occurs. The gas can include nitrogen oxides, carbon oxides, water vapor, sulfur oxides, particles, and many chemical pollutants.

Fly Ash: Non-combustible residue that results from the combustion of flue gases. It can include nitrogen oxides, carbon oxides, water vapor, sulfur oxides, as well as many other chemical pollutants.

French Drain System: A crushed rock drain system constructed of perforated pipes, which is used to drain and disperse wastewater.

Gasification (coal): The conversion of soft coal into gas for use as a fuel.

Generator: A facility that emits pollutants into the air or releases hazardous wastes into water or soil.

Good Faith Offer: A voluntary offer, generally in response to a Special Notice letter, made by a potentially responsible party, consisting of a written proposal demonstrating a potentially responsible party's qualifications

and willingness to perform a site study or cleanup.

Groundwater: Underground water that fills pores in soils or openings in rocks to the point of saturation. In aquifers, groundwater occurs in sufficient quantities for use as drinking and irrigation water and other purposes.

Groundwater Quality Assessment: The process of analyzing the chemical characteristics of groundwater to determine whether any hazardous materials exist.

Halogens: Reactive non-metals, such as chlorine and bromine. Halogens are very good oxidizing agents and, therefore, have many industrial uses. They are rarely found by themselves; however, many chemicals such as polychlorinated biphenyls (PCBs), some volatile organic compounds (VOCs), and dioxin are reactive because of the presence of halogens.

Hazard Ranking System (HRS): The principal screening tool used by the EPA to evaluate relative risks to public health and the environment associated with abandoned or uncontrolled hazardous waste sites. The HRS calculates a score based on the potential of hazardous substances spreading from the site through the air, surface water, or groundwater and on other factors such as nearby population. The HRS score is the primary factor in deciding if the site should be on the NPL.

Hazardous Waste: By-products of society that can pose a substantial present or potential hazard to human health and the environment when improperly managed. It possesses at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), or appears on special EPA lists.

Hot Spot: An area or vicinity of a site containing exceptionally high levels of contamination.

Hydrogeology: The geology of groundwater, with particular emphasis on the chemistry and movement of water.

Impoundment: A body of water or sludge confined by a dam, dike, floodgate, or other barrier.

Incineration: A group of treatment technologies involving destruction of waste by controlled burning at high temperatures, e.g., burning sludge to reduce the remaining residues to a non-burnable ash that can be disposed of safely on land, in some waters, or in underground locations.

Infiltration: The movement of water or other liquid down through soil from precipitation (rain or snow) or from application of wastewater to the land surface.

Influent: Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant.

Injection Well: A well into which waste fluids are placed, under pressure, for purposes of disposal.

Inorganic Chemicals: Chemical substances of mineral origin, not of basic carbon structure.

Installation Restoration Program: The specially funded program established in 1978 under which the Department of Defense has been identifying and evaluating its hazardous waste sites and controlling the migration of hazardous contaminants from those sites.

Intake: The source from where a water supply is drawn, such as from a river or water body.

Interagency Agreement: A written agreement between the EPA and a Federal agency that has the lead for site cleanup activities,

setting forth the roles and responsibilities of the agencies for performing and overseeing the activities. States often are parties to interagency agreements.

Interim (Permit) Status: Conditions under which hazardous waste treatment, storage, and disposal facilities, that were operating when regulations under the RCRA became final in 1980, are temporarily allowed by the EPA to continue to operate while awaiting denial or issuance of a permanent permit. The facility must comply with certain regulations to maintain interim status.

Lagoon: A shallow pond or liquid waste containment structure. Lagoons typically are used for the storage of wastewaters, sludges, liquid wastes, or spent nuclear fuel.

Landfarm: To apply waste to land and/or incorporate waste into the surface soil, such as fertilizer or soil conditioner. This practice commonly is used for disposal of composted wastes and sludges.

Landfill: A disposal facility where waste is placed in or on land. *Sanitary* landfills are disposal sites for non-hazardous solid wastes. The waste is spread in layers, compacted to the smallest practical volume, and covered with soil at the end of each operating day. Secure *chemical* landfills are disposal sites for hazardous waste. They are designed to minimize the chance of release of hazardous substances into the environment [see Resource Conservation and Recovery Act].

Leachate [n]: The liquid that trickles through or drains from waste, carrying soluble components from the waste. **Leach, Leaching [v.t.]:** The process by which soluble chemical components are dissolved and carried through soil by water or some other percolating liquid.

Leachate Collection System: A system that gathers liquid that has leaked into a landfill or other waste disposal area and pumps it to the surface for treatment.

Liner: A relatively impermeable barrier designed to prevent leachate (waste residue) from leaking from a landfill. Liner materials include plastic and dense clay.

Long-term Remedial Phase: Distinct, often incremental, steps that are taken to solve site pollution problems. Depending on the complexity, site cleanup activities can be separated into several of these phases.

Marsh: A type of wetland that does not contain peat moss deposits and is dominated by vegetation. Marshes may be either fresh or saltwater and tidal or non-tidal [see Wetland].

Migration: The movement of oil, gas, contaminants, water, or other liquids through porous and permeable soils or rock.

Mill Tailings: [See Mine Tailings].

Mine Tailings: A fine, sandy residue left from mining operations. Tailings often contain high concentrations of lead, uranium, and arsenic or other heavy metals.

Mitigation: Actions taken to improve site conditions by limiting, reducing, or controlling toxicity and contamination sources.

Modeling: A technique using a mathematical or physical representation of a system or theory that tests the effects that changes on system components have on the overall performance of the system.

Monitoring Wells: Special wells drilled at specific locations within, or surrounding, a hazardous waste site where groundwater can be sampled at selected depths and studied to obtain such information as the direction in

which groundwater flows and the types and amounts of contaminants present.

National Priorities List (NPL): The EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term cleanup under Superfund. The EPA is required to update the NPL at least once a year.

Neutrals: Organic compounds that have a relatively neutral pH, complex structure and, due to their organic bases, are easily absorbed into the environment. Naphthalene, pyrene, and trichlorobenzene are examples of neutrals.

Nitroaromatics: Common components of explosive materials, which will explode if activated by very high temperatures or pressures; 2,4,6-Trinitrotoluene (TNT) is a nitroaromatic.

Notice Letter: A General Notice Letter notifies the parties potentially responsible for site contamination of their possible liability. A Special Notice Letter begins a 60-day formal period of negotiation during which the EPA is not allowed to start work at a site or initiate enforcement actions against potentially responsible parties, although the EPA may undertake certain investigatory and planning activities. The 60-day period may be extended if the EPA receives a good faith offer within that period.

On-Scene Coordinator (OSC): The predesignated EPA, Coast Guard, or Department of Defense official who coordinates and directs Superfund removal actions or Clean Water Act oil- or hazardous-spill corrective actions.

Operation and Maintenance: Activities conducted at a site after a cleanup action is completed to ensure that the cleanup or containment system is functioning properly.

Organic Chemicals/Compounds: Chemical substances containing mainly carbon, hydrogen, and oxygen.

Outfall: The place where wastewater is discharged into receiving waters.

Overpacking: Process used for isolating large volumes of waste by jacketing or encapsulating waste to prevent further spread or leakage of contaminating materials. Leaking drums may be contained within oversized barrels as an interim measure prior to removal and final disposal.

Pentachlorophenol (PCP): A synthetic, modified petrochemical that is used as a wood preservative because of its toxicity to termites and fungi. It is a common component of creosotes and can cause cancer.

Perched (groundwater): Groundwater separated from another underlying body of groundwater by a confining layer, often clay or rock.

Percolation: The downward flow or filtering of water or other liquids through subsurface rock or soil layers, usually continuing downward to groundwater.

Petrochemicals: Chemical substances produced from petroleum in refinery operations and as fuel oil residues. These include fluoranthene, chrysene, mineral spirits, and refined oils. Petrochemicals are the bases from which volatile organic compounds (VOCs), plastics, and many pesticides are made. These chemical substances often are toxic to humans and the environment.

Phenols: Organic compounds that are used in plastics manufacturing and are by-products of petroleum refining, tanning, textile, dye, and resin manufacturing. Phenols are highly poisonous.

Physical Chemical Separation: The treatment process of adding a chemical to a substance to separate the compounds for further treatment or disposal.

Pilot Testing: A small-scale test of a proposed treatment system in the field to determine its ability to clean up specific contaminants.

Plugging: The process of stopping the flow of water, oil, or gas into or out of the ground through a borehole or well penetrating the ground.

Plume: A body of contaminated groundwater flowing from a specific source. The movement of the groundwater is influenced by such factors as local groundwater flow patterns, the character of the aquifer in which groundwater is contained, and the density of contaminants [see Migration].

Pollution: Generally, the presence of matter or energy whose nature, location, or quantity produces undesired health or environmental effects.

Polycyclic Aromatic Hydrocarbons or Polyaromatic Hydrocarbons (PAHs): PAHs, such as pyrene, are a group of highly reactive organic compounds found in motor oil. They are a common component of creosotes and can cause cancer.

Polychlorinated Biphenyls (PCBs): A group of toxic chemicals used for a variety of purposes including electrical applications, carbonless copy paper, adhesives, hydraulic fluids, microscope immersion oils, and caulking compounds. PCBs also are produced in certain combustion processes. PCBs are extremely persistent in the environment because they are very stable, non-reactive, and highly heat resistant. Chronic exposure to PCBs is believed to cause liver damage. It also is known to bioaccumulate in fatty tissues. PCB use and sale was banned in 1979 with the passage of the Toxic Substances Control Act.

Polynuclear Aromatic Hydrocarbons (PNAs): PNAs, such as naphthalene, and biphenyls, are a group of highly reactive organic compounds that are a common component of creosotes, which can be carcinogenic.

Polyvinyl Chloride (PVC): A plastic made from the gaseous substance vinyl chloride. PVC is used to make pipes, records, raincoats, and floor tiles. Health risks from high concentrations of vinyl chloride include liver cancer and lung cancer, as well as cancer of the lymphatic and nervous systems.

Potable Water: Water that is safe for drinking and cooking.

Potentially Responsible Parties (PRPs): Parties, including owners, who may have contributed to the contamination at a Superfund site and may be liable for costs of response actions. Parties are considered PRPs until they admit liability or a court makes a determination of liability. PRPs may sign a Consent Decree or Administrative Order on Consent to participate in site cleanup activity without admitting liability.

Precipitation: The removal of solids from liquid waste so that the solid and liquid portions can be disposed of safely; the removal of particles from airborne emissions. Electrochemical precipitation is the use of an anode or cathode to remove the hazardous chemicals. Chemical precipitation involves the addition of some substance to cause the solid portion to separate.

Preliminary Assessment: The process of collecting and reviewing available information about a known or suspected waste site or release to determine if a threat or potential threat exists.

Pump and Treat: A groundwater cleanup technique involving the extracting of contaminated groundwater from the subsurface and the removal of contaminants, using one of several treatment technologies.

Radionuclides: Elements, including radium and uranium-235 and -238, which break down and produce radioactive substances due to their unstable atomic structure. Some are man-made, and others are naturally occurring in the environment. Radon, the gaseous form of radium, decays to form alpha particle radiation, which cannot be absorbed through skin. However, it can be inhaled, which allows alpha particles to affect unprotected tissues directly and thus cause cancer. Radiation also occurs naturally through the breakdown of granite stones.

RCRA: [See Resource Conservation and Recovery Act].

Recharge Area: A land area where rainwater saturates the ground and soaks through the earth to reach an aquifer.

Record of Decision (ROD): A public document that explains which cleanup alternative(s) will be used to clean up sites listed on the NPL. It is based on information generated during the remedial investigation and feasibility study and consideration of public comments and community concerns.

Recovery Wells: Wells used to withdraw contaminants or contaminated groundwater.

Recycle: The process of minimizing waste generation by recovering usable products that might otherwise become waste.

Remedial Action (RA): The actual construction or implementation phase of a Superfund site cleanup following the remedial design [see Cleanup].

Remedial Design: A phase of site cleanup, where engineers design the technical specifications for cleanup remedies and technologies.

Remedial Investigation: An in-depth study designed to gather the data necessary to determine the nature and extent of contamination at a Superfund site, establish the criteria for cleaning up the site, identify the preliminary alternatives for cleanup actions, and support the technical and cost analyses of the alternatives. The remedial investigation is usually done with the feasibility study. Together they are customarily referred to as the RI/FS [see Feasibility Study].

Remedial Project Manager (RPM): The EPA or State official responsible for overseeing cleanup actions at a site.

Remedy Selection: The selection of the final cleanup strategy for the site. At the few sites where the EPA has determined that initial response actions have eliminated site contamination, or that any remaining contamination will be naturally dispersed without further cleanup activities, a "No Action" remedy is selected [see Record of Decision].

Removal Action: Short-term immediate actions taken to address releases of hazardous substances [see Cleanup].

Residual: The amount of a pollutant remaining in the environment after a natural or technological process has taken place, e.g., the sludge remaining after initial wastewater treatment, or particulates remaining in air after the air passes through a scrubbing, or other, process.

Resource Conservation and Recovery Act (RCRA): A Federal law that established a regulatory system to track hazardous substances from the time of generation to disposal. The law requires safe and secure

procedures to be used in treating, transporting, storing, and disposing of hazardous substances. RCRA is designed to prevent new, uncontrolled hazardous waste sites.

Retention Pond: A small body of liquid used for disposing of wastes and containing overflow from production facilities. Sometimes retention ponds are used to expand the capacity of such structures as lagoons to store waste.

Riparian Habitat: Areas adjacent to rivers and streams that have a high density, diversity, and productivity of plant and animal species relative to nearby uplands.

Runoff: The discharge of water over land into surface water. It can carry pollutants from the air and land and spread contamination from its source.

Scrubber: An air pollution device that uses a spray of water or reactant or a dry process to trap pollutants in emissions.

Sediment: The layer of soil, sand, and minerals at the bottom of surface waters, such as streams, lakes, and rivers, that absorbs contaminants.

Seeps: Specific points where releases of liquid (usually leachate) form from waste disposal areas, particularly along the lower edges of landfills.

Seepage Pits: A hole, shaft, or cavity in the ground used for storage of liquids, usually in the form of leachate, from waste disposal areas. The liquid gradually leaves the pit by moving through the surrounding soil.

Septage: Residue remaining in a septic tank after the treatment process.

Sinkhole: A hollow depression in the land surface in which drainage collects; associated with underground caves and passages that facilitate the movement of liquids.

Site Characterization: The technical process used to evaluate the nature and extent of environmental contamination, which is necessary for choosing and designing cleanup measures and monitoring their effectiveness.

Site Inspection: The collection of information from a hazardous waste site to determine the extent and severity of hazards posed by the site. It follows, and is more extensive than, a preliminary assessment. The purpose is to gather information necessary to score the site, using the Hazard Ranking System, and to determine if the site presents an immediate threat that requires a prompt removal action.

Slag: The fused refuse or dross separated from a metal in the process of smelting.

Sludge: Semi-solid residues from industrial or water treatment processes that may be contaminated with hazardous materials.

Slurry Wall: Barriers used to contain the flow of contaminated groundwater or subsurface liquids. Slurry walls are constructed by digging a trench around a contaminated area and filling the trench with an impermeable material that prevents water from passing through it. The groundwater or contaminated liquids trapped within the area surrounded by the slurry wall can be extracted and treated.

Smelter: A facility that melts or fuses ore, often with an accompanying chemical change, to separate the metal. Emissions from smelters are known to cause pollution.

Soil Gas: Gaseous elements and compounds that occur in the small spaces between particles of soil. Such gases can move through

or leave the soil or rock, depending on changes in pressure.

Soil Vapor Extraction: A treatment process that uses vacuum wells to remove hazardous gases from soil.

Soil Washing: A water-based process for mechanically scrubbing soils in-place to remove undesirable materials. There are two approaches: dissolving or suspending them in the wash solution for later treatment by conventional methods, and concentrating them into a smaller volume of soil through simple particle size separation techniques [see Solvent Extraction].

Stabilization: The process of changing an active substance into inert, harmless material, or physical activities at a site that act to limit the further spread of contamination without actual reduction of toxicity.

Solidification/Stabilization: A chemical or physical reduction of the mobility of hazardous constituents. Mobility is reduced through the binding of hazardous constituents into a solid mass with low permeability and resistance to leaching.

Solvent: A substance capable of dissolving another substance to form a solution. The primary uses of industrial solvents are as cleaners for degreasing, in paints, and in pharmaceuticals. Many solvents are flammable and toxic to varying degrees.

Solvent Extraction: A means of separating hazardous contaminants from soils, sludges, and sediment, thereby reducing the volume of the hazardous waste that must be treated. It generally is used as one in a series of unit operations. An organic chemical is used to dissolve contaminants as opposed to water-based compounds, which usually are used in soil washing.

Sorption: The action of soaking up or attracting substances. It is used in many pollution control systems.

Stillbottom: Residues left over from the process of recovering spent solvents.

Stripping: A process used to remove volatile contaminants from a substance [see Air Stripping].

Sumps: A pit or tank that catches liquid runoff for drainage or disposal.

Superfund: The program operated under the legislative authority of the CERCLA and Superfund Amendments and Reauthorization Act (SARA) to update and improve environmental laws. The program has the authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health, welfare, or the environment. The "Superfund" is a trust fund that finances cleanup actions at hazardous waste sites.

Surge Tanks: A holding structure used to absorb irregularities in flow of liquids, including liquid waste materials.

Swamp: A type of wetland that is dominated by woody vegetation and does not accumulate peat moss deposits. Swamps may be fresh or saltwater and tidal or non-tidal [see Wetlands].

Thermal Treatment: The use of heat to remove or destroy contaminants from soil.

Treatability Studies: Testing a treatment method on contaminated groundwater, soil, etc., to determine whether and how well the method will work.

Trichloroethylene (TCE): A stable, colorless liquid with a low boiling point. TCE has many industrial applications, including use as

a solvent and as a metal degreasing agent. TCE may be toxic to people when inhaled, ingested, or through skin contact and can damage vital organs, especially the liver [see Volatile Organic Compounds].

Unilateral [Administrative] Order: [see Administrative Order].

Upgradient: An upward hydrologic slope; demarks areas that are higher than contaminated areas and, therefore, are not prone to contamination by the movement of polluted groundwater.

Vacuum Extraction: A technology used to remove volatile organic compounds (VOCs) from soils. Vacuum pumps are connected to a series of wells drilled to just above the water table. The wells are sealed tightly at the soil surface, and the vacuum established in the soil draws VOC-contaminated air from the soil pores into the well, as fresh air is drawn down from the surface of the soil.

Vegetated Soil Cap: A cap constructed with graded soils and seed for vegetative growth, to prevent erosion [see Cap].

Vitrification: The process of electrically melting wastes and soils or sludges to bind the waste in a glassy, solid material more durable than granite or marble and resistant to leaching.

Volatile Organic Compounds (VOCs): VOCs are manufactured as secondary petrochemicals. They include light alcohols, acetone, trichloroethylene, perchloroethylene, dichloroethylene, benzene, vinyl chloride, toluene, and methylene chloride. These potentially toxic chemicals are used as solvents, degreasers, paints, thinners, and fuels. Because of their volatile nature, they readily evaporate into the air, increasing the potential exposure to humans. Due to their low water solubility, environmental persistence, and widespread industrial use, they are commonly found in soil and groundwater.

Waste Treatment Plant: A facility that uses a series of tanks, screens, filters, and other treatment processes to remove pollutants from water.

Wastewater: The spent or used water from individual homes or industries.

Watershed: The land area that drains into a stream or other water body.

Water Table: The upper surface of the groundwater.

Weir: A barrier to divert water or other liquids.

Wetland: An area that is regularly saturated by surface or groundwater and, under normal circumstances, is capable of supporting vegetation typically adapted for life in saturated soil conditions. Wetlands are critical to sustaining many species of fish and wildlife. Wetlands generally include swamps, marshes, and bogs. Wetlands may be either coastal or inland. Coastal wetlands have salt or brackish (a mixture of salt and fresh) water, and most have tides, while inland wetlands are nontidal and freshwater. Coastal wetlands are an integral component of estuaries.

Wildlife Refuge: An area designated for the protection of wild animals, within which hunting and fishing are either prohibited or strictly controlled.

APPENDIX B

Information Repositories for NPL Sites in Ohio

Information Repositories for NPL Sites in the State of Ohio

Repositories are established for all NPL sites so that the public can obtain additional information related to site activities. Some sites may have more than one repository location, however, the primary site repository is listed below. All public access information pertaining to the site will be on file at these repositories. The quantity and nature of the documentation found in the repositories depends on the extent of activity and cleanup progress for each site and may include some or all of the following: community relations plans, announcements for public meetings, minutes from public meetings, fact sheets detailing activities at sites, documents relating to the selection of cleanup remedies, press releases, locations of other public information centers, and any other documents pertaining to site activities.

Site Name	Site Repository
ALLIED CHEMICAL & IRONTON COKE	Briggs Lawrence County Public Library, 321 South 4th Street, Ironton, OH 45638
ALSCO ANACONDA	Gnadenhutten Public Library, 160 North Walnut Street, Gnadenhutten, OH 44629
ARCANUM IRON & METAL	Arcanum Public Library, 101 North Street, Arcanum, OH 45304
BIG D CAMPGROUND	Kingsville Township Public Library, 6006 Academy Avenue, Kingsville, OH 44048
BOWERS LANDFILL	Pickaway County District Library, 165 East Main Street, Circleville, OH 43113
BUCKEYE RECLAMATION	St. Clairsville Public Library, 108 West Main Street, St. Clairsville, OH 43950
CHEM-DYNE	City of Hamilton, Municipal Building, 20 High Street, Hamilton, OH 45011
COSHOCTON LDFL	Coshocton Public Library, 655 Main Street, Coshocton, OH 43812
E. H. SHILLING LANDFILL	Briggs Lawrence County Public Library, 321 South 4th Street, Ironton, OH 45638
FEED MATERIALS PRODUCTION CENTER	Lane Public Library, North Third & Buckeye Streets, Hamilton, OH 45011
FIELDS BROOK	Ashtabula County District Library, 335 West 44th Street, Ashtabula, OH 44004
FULTZ LANDFILL	Guernsey County Public Library, Byesville Branch, 100 Glass Avenue, Byesville, OH 43723
INDUSTRIAL EXCESS LANDFILL	Hartville Branch Library, 411 East Maple Street, Hartville, OH 44632
LASKIN/POPLAR OIL	Ashtabula Public Library, 355 West 44th Street, Ashtabula, OH 44004
MIAMI COUNTY INCINERATOR	Miami County Public Library, 419 West Main Street, Troy, OH 45373
MOUND PLANT (US DOE)	Dayton & Montgomery County Public Library, Miamisburg Branch, 355 Fifth Street, Miamisburg, OH 45342
NEASE CHEMICAL	Salem Public Library, 821 East State Street, Salem, OH 44460
NEW LYME LANDFILL	United States Post Office, 4949 Day Road, Jefferson, OH 44047
OLD MILL	Rock Creek Public Library, 2988 High Street, Rock Creek, OH 44084
ORMET CORP.	United States Post Office, Boston Hill Road, Hannibal, OH 43931
POWELL ROAD LANDFILL	Montgomery County Public Library, Dayton Branch, 215 East 3rd Street, Dayton, OH 45402
PRISTINE, INC.	Valley Public Library, 301 West Benson Street, Reading, OH 45215
REILLY TAR AND CHEMICAL CORP.	Dover Public Library, 525 North Walnut, Dover, OH 44622
REPUBLIC STEEL CORP. QUARRY	Elyria Public Library, Reference Department, 320 Washington Avenue, Elyria, OH 44035

Information Repositories for NPL Sites in the State of Ohio
(Continued)

Site Name	Site Repository
SANITARY LDFL COMPANY	Dayton Public Library, Kettering-Moraine Branch, 3496 Far Hills Avenue, Kettering, OH 45429
SKINNER LANDFILL	Union Township Library, 7900 Cox Road, West Chester, OH 45069
SOUTH POINT PLANT	Briggs-Lawrence County Library, 321 South 4th Street, Ironton, OH 45683
SUMMIT NATIONAL	Deerfield Post Office, 1365 State Route 14, Deerfield, OH 44411
TRW, INC. (MINERVA PLANT)	Minerva Public Library, 677 Linwood Street, Minerva, OH 44657
UNITED SCRAP LEAD COMPANY, INC.	Troy-Miami County Public Library, 419 West Main Street, Troy, OH 45373
VAN DALE JUNKYARD	Washington County Public Library, 615 Fifth Street, Marietta, OH 45750
WRIGHT-PATTERSON AIR FORCE BASE	Greene County Library, Fairborn Branch, 1 East Main Street, Fairborn, OH 45324
ZANESVILLE WELL FIELD	Muskingum County Library, 220 North Fifth Street, Zanesville, OH 43701

* U.S. G.P.O.:1992-311-893-60440