United States
Environmental Protection
Agency

Solid Waste And
Emergency Response
(OS-240)

EPA/540/4-90/013
September 1990

EPA

National Priorities List Sites:

IDAHO

EPA/540/4-90/013
September 1990

NATIONAL PRIORITIES LIST SITES:
Idaho

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

If you wish to purchase copies of any additional State volumes or the National Overview volume, ***Superfund: Focusing on the Nation at Large***, contact:

National Technical Information Service (NTIS)
U.S. Department of Commerce
5285 Port Royal Road
Springfield, VA 22161
(703) 487-4600

TABLE OF CONTENTS

INTRODUCTION:

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, property values depreciated. 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 the 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 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.

In the 10 years 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 at others improperly disposed or stored wastes threatened the health of the surrounding community and the environment.

EPA Identified More than 1,200 Serious Sites

EPA has identified 1,236 hazardous waste sites as the most serious in the Nation. These sites comprise the "National Priorities List": sites targeted for cleanup under the Superfund. But site discoveries continue, and EPA estimates that, while some will be deleted after lengthy cleanups, this list, commonly called the NPL, will continue to grow by approximately 100 sites per year, 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 (1,236) are thus a rela-

tively small subset of a larger inventory of potential hazardous waste sites, but they do comprise the most complex and environmentally compelling cases. EPA has logged more than 32,000 sites on its National hazardous waste inventory, and assesses each site within one year of being logged. In fact, over 90 percent of the sites on the inventory have been assessed. Of the assessed sites, 55 percent have been found to require no further Federal action because they did not pose significant human health or environmental risks. The remaining sites are undergoing further assessment to determine if long-term Federal cleanup activities are appropriate.

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.

The 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 hazardous release, or the threat of one. 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 the Superfund 's most noted achievements. Where imminent threats to the public or environment were evident, EPA has completed or monitored emergency actions that attacked the most serious threats to toxic exposure in more than 1,800 cases.

The ultimate goal for a hazardous waste site on the NPL is a permanent solution to an environmental problem that presents a serious (but not an imminent) threat to the public or environment. This often requires a long-term effort. In the last four years, 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. And in 1989 more sites than ever reached the construction stage of the Superfund cleanup process. Indeed construction starts increased by over 200 percent between late 1986 and 1989! Of the sites currently on the NPL, more than 500 — nearly half — have had construction cleanup activity. In addition, over 500 more sites are presently 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. Measuring success by "progress through the cleanup pipeline," EPA is clearly gaining momentum.

EPA MAKES SURE CLEANUP WORKS

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.

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, 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 still being safeguarded. EPA will correct any deficiencies discovered and 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. EPA's job is to analyze the hazards and deploy the experts, but the Agency needs citizen input as it makes choices for affected communities.

Because the people in a community with a Superfund site will be those most directly affected by hazardous waste problems and cleanup processes, 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.

This State volume and the companion National Overview volume provide general Superfund background information and descriptions of activities at each State NPL site. These volumes are intended to clearly describe what the problems are, what 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 IN TANDEM

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. The public 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 volume — ***Superfund: Focusing on the Nation at Large*** — accompanies this State volume. The National Overview 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, the Superfund program's successes in cleaning up the Nation's serious hazardous waste sites, and the vital roles of the various participants in the cleanup process.

This State volume compiles site summary fact sheets on each State 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 State book gives a "snapshot" of the conditions and cleanup progress that has been made at each NPL site in the State through the first half of 1990. Conditions change as our cleanup efforts continue, so these site summaries will be updated periodically to include new information on progress being made.

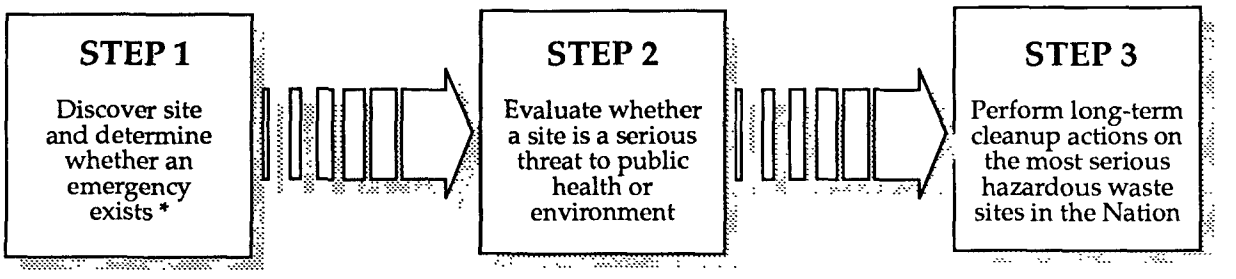
To help you understand the cleanup accomplishments made at these sites, this State volume includes a description of the process for site discovery, threat evaluation and long-term cleanup of Superfund sites. This description — ***How Does the Program Work to Clean Up Sites?*** — will serve as a good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

SUPERFUND:

How Does the Program Work to Clean Up Sites?

The diverse problems posed by the Nation's hazardous waste sites have provided EPA with the challenge to establish a consistent approach for evaluating and cleaning up the Nation's most serious sites. To do this, EPA 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. EPA has established procedures to coordinate the efforts of its Washington, D.C. Headquarters program offices and its front-line staff in 10 Regional Offices with the State 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 EPA or the State or, under their monitoring, by private parties who are potentially responsible for site contamination.

The process for discovery of the site, evaluation of threat, and 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 below provides a summary of this three step process.



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

FIGURE 1

Although this State 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 up to identifying and cleaning up these most serious uncontrolled or abandoned hazardous waste sites in the Nation. This discovery and evaluation process is the starting point for this summary description.

STEP 1: SITE DISCOVERY AND EMERGENCY EVALUATION

How does 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. Or 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 EPA informed about either 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, 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 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 figure out what is contaminating the drinking water supply and the best way to clean it up. Or

EPA may determine that there is no imminent danger from a site, so now 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 requires a long-term cleanup action.

Once a site is discovered and any needed emergency actions are taken, 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 like 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 don't 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 32,000 sites maintained in this inventory.

If the preliminary assessment shows that 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 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 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, EPA developed the Hazard Ranking System (HRS). The HRS is the scoring system 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 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 EPA's **National Priorities List (NPL)**. That's why there are 1,236 sites are on the NPL, but there are more than 32,000 sites in the Superfund inventory. Only NPL sites can have a long-term cleanup paid for from the national hazardous waste trust fund — the Superfund. But the Superfund can and does pay for emergency actions performed at any site, whether *or not it's on the NPL.*

How do people find out whether EPA considers a site a national priority for cleanup using Superfund money?

The public can find out whether a site that concerns them is on the NPL by calling their Regional EPA office at the number listed in this book.

The proposed NPL identifies sites that 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 added 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. Updated at least once a year, it's only after public comments are considered that these proposed worst sites are officially added to the NPL.

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

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. So a five-phase "remedial response" process is used to develop consistent and workable solutions to hazardous waste problems across the Nation:

1. Investigate in detail the extent of the site contamination: **remedial investigation,**
2. Study the range of possible cleanup remedies: **feasibility study,**
3. Decide which remedy to use: **Record of Decision or ROD,**
4. Plan the remedy: **remedial design,** and
5. Carry out the remedy: **remedial action.**

This remedial response process is a long-term effort to provide a permanent solution to an environmental problem that presents a serious, but not an imminent 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 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. But 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 is information that allows 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?

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 carefully compared. 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 use treatment technologies to destroy principal site contaminants. But remedies such as containing the waste on site or removing the source of the problem (like leaking barrels) are often 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.

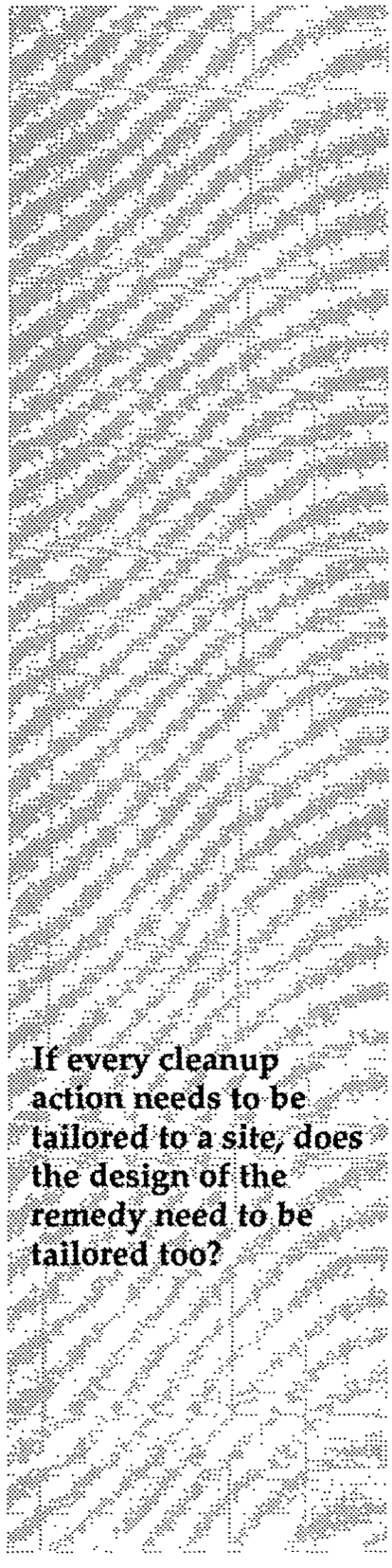
Does the public have a say in the final cleanup decision?

Yes. The Superfund law requires that the public be given the opportunity to comment on the proposed cleanup plan. Their concerns are carefully considered 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. 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.

The public has a minimum of 30 days to comment on the proposed cleanup plan after it is published. These comments can either be written or given verbally at public meetings that EPA or the State are required to hold. Neither 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 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 of the 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 6 months to 2 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 complete, 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 decontaminate them — an action that takes limited time and money. In most cases, however, a remedial action may involve different and expensive 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, a remedial cleanup action takes an average of 18 months to complete and costs an average of $26 million per site.

Once the cleanup action is complete, 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 the **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 completed".

It's not until a site cleanup meets all the goals and monitoring requirements of the selected remedy that 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 can actually be deleted from the NPL. Deletions that have occurred are included in the "Construction Complete" category in the progress report found later in this book.

Can 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 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 EPA, and must meet the same standards required for actions financed through the Superfund.

Because these enforcement actions can be lengthy, 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 for repaying the money EPA spends in cleaning up the site.

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

HOW TO:

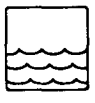
USING THE STATE VOLUME

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 National Priorities List (NPL) and their locations, as well as the conditions leading to their listing ("Site Description"). They 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 on 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 following two pages show a generic fact sheet and briefly describes the information under each section. The square "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.

Icons in the *Threats and Contaminants* Section

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



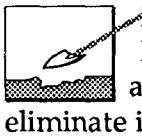
Contaminated **Surface Water and Sediments** on or near the site. (These include lakes, ponds, streams, and rivers.)

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

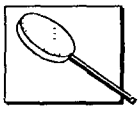
Contaminated **Soil and Sludges** on or near the site.

Threatened or contaminated **Environmentally Sensitive Areas** in the vicinity of the site. (Examples include wetlands and coastal areas, 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 are planned or underway.

Remedy Selected indicates that site investigations have been concluded and 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 — are currently underway.

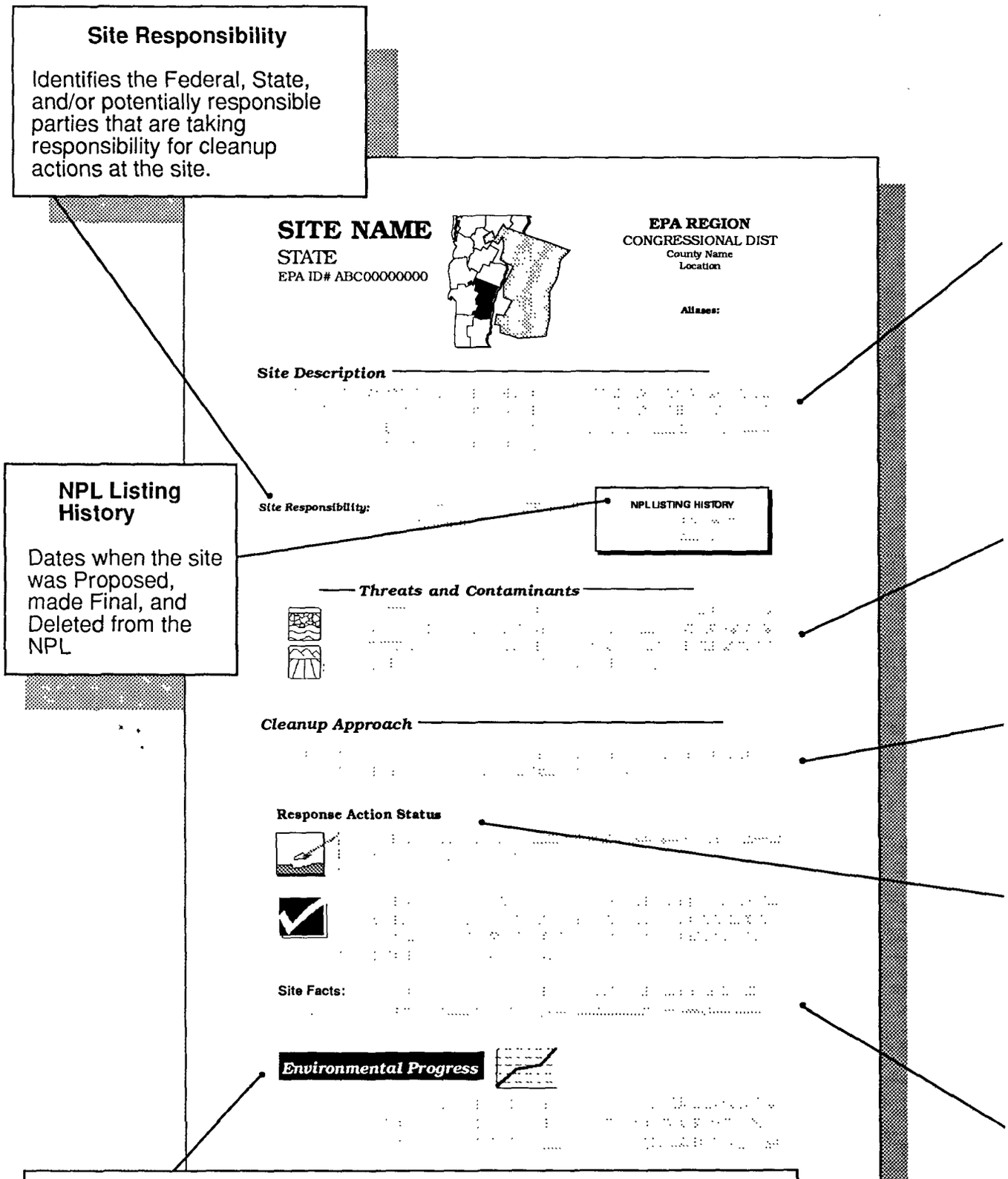
Cleanup Complete shows that all cleanup goals have been achieved for the contaminated site or part of the site.

Site Responsibility

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

NPL Listing History

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



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.

WHAT THE FACT SHEETS CONTAIN

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. Throughout the site description and other sections of the site summary, technical or unfamiliar terms that are *italicized* are presented in the glossary at the end of the book. Please refer to the glossary for more detailed explanation or definition of the terms.

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 are also described. Specific *contaminants and contaminant groupings* are italicized and explained in more detail in the glossary.

Cleanup Approach

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

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 are often 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.

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 EPA to achieve site cleanup or other facts pertaining to community involvement with the site cleanup process are reported here.

How To

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 is always being made at NPL sites, and EPA will periodically update the Site Fact Sheets to reflect recent actions and publish updated State volumes.

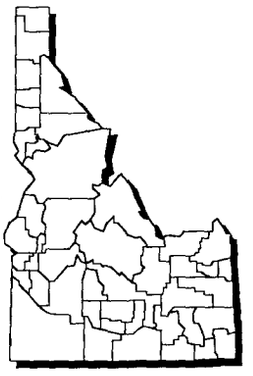
HOW CAN *YOU* USE THIS STATE BOOK?

You can use this book to keep informed about the sites that concern you, particularly ones close to home. EPA is committed to involving the public in the decisionmaking 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 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 to know what the community can realistically expect once the cleanup is complete.

EPA wants to develop cleanup methods that meet community needs, but the Agency can only 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 Sites in State of Idaho



The Middle Rocky Mountain State of Utah is bordered by Idaho and Wyoming to the north, Nevada to the west, Colorado to the east, and Arizona to the south. Utah covers 84,899 square miles and consists of high Colorado plateau in the southeast, the broad, flat, desert-like Great Basin in the west, the Great Salt Lake and salt flats in the northwest, as well as the Rocky Mountains and the valleys and plateaus of the Wasatch Front. Utah experienced a 15.7 percent increase in population during the 1980s and currently has approximately 1,690,000 residents, ranking 35th in U.S. populations. Principal State industries include manufacturing, tourism, trade, services, mining, transportation, and education. Utah manufactures guided missiles and parts, electronic components, food products, fabricated metals, steel, electrical and transportation equipment.

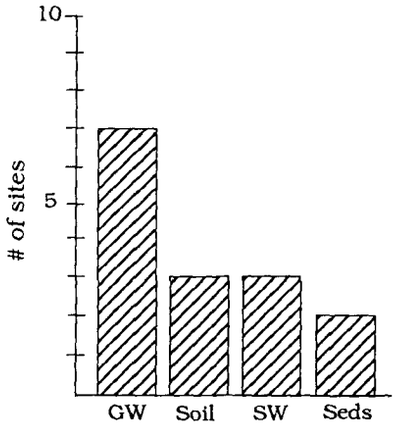
How Many Idaho Sites Are on the NPL?

Proposed	3
Final	6
Deleted	0
	9

Where Are the NPL Sites Located?

Cong. District 01	2 sites
Cong. District 02	7 sites

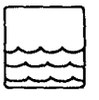
How are Sites Contaminated and What are the Principal* Chemicals ?



Contamination Area

Groundwater: Heavy metals (inorganics), volatile organic compounds (VOCs).

Soil: Volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), heavy metals (inorganics), creosotes (organics), and acids.

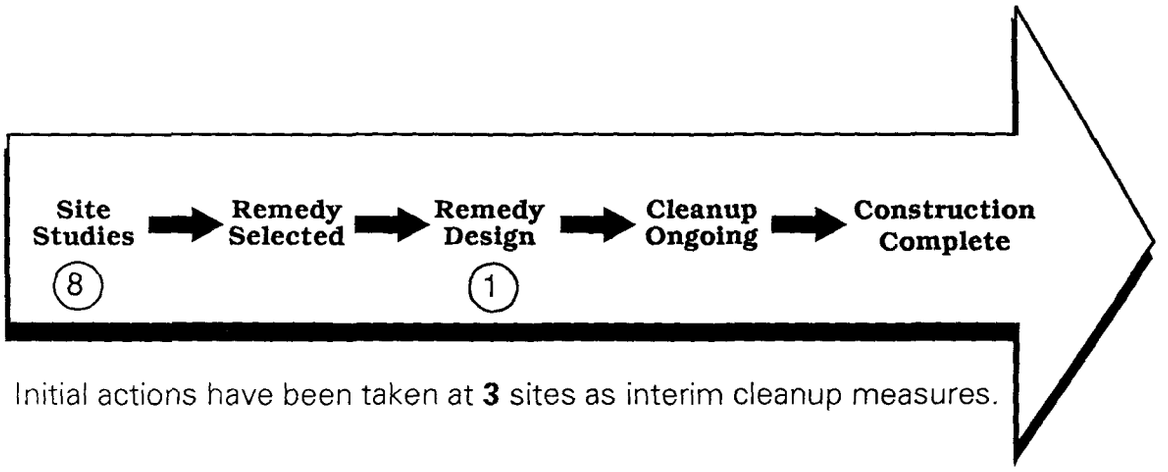


Surface Water and Sediments: Heavy metals (inorganics), polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs).

*Appear at 33% cr more sites

continued

Where are the Sites in the Superfund Cleanup Process*?



Initial actions have been taken at **3** sites as interim cleanup measures.

Who Do I Call with Questions?

The following pages describe each NPL site in Idaho, providing specific information on threats and contaminants, cleanup activities, and environmental progress. Should you have questions, please call one of the offices listed below:

Idaho Superfund Office	(208) 334-5879
EPA Region X Superfund Office	(206) 442-1987
EPA Public Information Office	(202) 477-7751
EPA Superfund Hotline	(800) 424-9346
EPA Region X Superfund Public Relations Office	(206) 442-1283

*Cleanup status reflects phase of site activities rather than administrative accomplishments.

The NPL Progress Report

The following Progress Report lists the State 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 (➨) which indicates the current stage of cleanup at the site.

Large and complex sites are often 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 is currently underway. Emergency or initial actions are taken as an interim measure to provide immediete relief from exposure to hazardous site conditions or to stabilize a site to prevent further contamination.
- ➨ An arrow in the "Site Studies" category indicates that an investigation to determine the nature and extent of the contamination at the site is currently ongoing or planned to begin in 1991.
- ➨ An 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 in the Progress Report are discontinued at the "Remedy Selection" step and resume in the final "Construction Complete" category.
- ➨ An arrow at the "Remedial Design" stage indicates that engineers are currently designing the technical specifications for the selected cleanup remedies and technologies.
- ➨ An arrow marking the "Cleanup Ongoing" category means that final cleanup actions have been started at the site and are currently underway.
- ➨ A 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 may currently be undergoing long-term pumping and treating of groundwater, operation and maintenance or monitoring to ensure that the completed cleanup actions continue to protect human health and the environment.

The sites are listed in alphabetical order. 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 Idaho

Page	Site Name	County	NPL	Date	Initial Response	Site Studies	Remedy Selected	Remedy Design	Cleanup Ongoing	Construction Complete
1	ARRCOM CORP (DREXLER ENTERPRISES)	KOOTENAI	Final	09/08/83	➡	➡				
3	BUNKER HILL MINING & METALLURG.	SHOSHONE	Final	09/08/83	➡	➡				
6	EASTERN MICHAUD FLATS CONTAMIN	BANNOCK	Prop.	05/05/89		➡				
8	IDAHO NATIONAL ENGINEERING LAB	BUTTE	Final	11/21/89		➡				
10	KERR-MCGEE CHEMICAL CORP.	CARIBOU	Final	10/04/89		➡				
12	MONSANTO (SODA SPRINGS PLANT)	CARIBOU	Prop	05/05/89		➡				
14	MOUNTAIN HOME AIR FORCE BASE	ELMORE	Prop	07/14/89		➡				
16	PACIFIC HIDE & FUR RECYCLING CO.	BANNOCK	Final	09/21/84	➡	➡	➡	➡		
18	UNION PACIFIC RR CO.	BANNOCK	Final	09/21/84		➡				

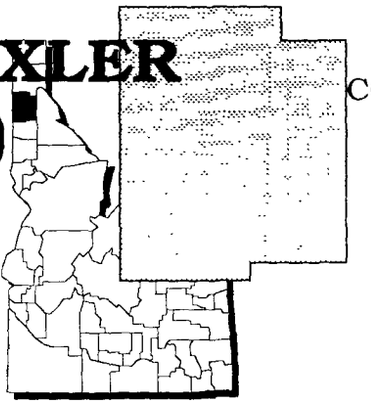
NPL:

Site Fact Sheets

ARRCOM (DREXLER ENTERPRISES)

IDAHO

EPA ID# IDD000800961



REGION 10

CONGRESSIONAL DIST. 01

Kootenai County

Rathdrum

Site Description

The Arrcom (Drexler Enterprises) site covers a little over an acre approximately 3 miles southwest of Rathdrum. From 1960 until the facility was abandoned in 1982, Arrcom recycled waste oils containing a variety of organic solvents, lead, and *polychorinated biphenyls* (PCBs). Activities at the site have resulted in the contamination of soils and *sludges,* as well as the production of hazardous waste materials including storage tanks and trucks left on the site. Approximately 6,300 people live within 3 miles of the site. The residents in the area depend on groundwater for drinking water as well as for the irrigation of fields. The nearest well is 150 feet away from the site. The Spokane Valley-Rathdrum Prairie Aquifer runs approximately 135 feet underneath the site and is the sole source of drinking water and crop irrigation for 350,000 people in the region. Three groundwater monitoring wells surround 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

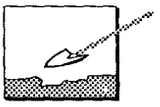
Threats and Contaminants

Soils on the site contain *volatile organic compounds* (VOCs) including toluene, xylene, and methyl ethyl ketone; heavy metals including lead and mercury; acid; PCBs, and *pentachlorophenol* (PCP). Buildings on the site have been found to have been constructed using asbestos materials. Accidental ingestion or inhalation of contaminated soil particles or asbestos may pose a potential health risk. No contamination has been found in the groundwater.

Cleanup Approach

The site is being addressed in two stages: immediate actions and a *long-term remedial phase* directed at cleanup of the entire site.

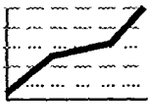
Response Action Status



Immediate Actions: In 1983, the EPA began removing and treating contaminants at the site. Tanks containing PCB-contaminated products were pumped and flushed. The volume of contents in the remaining tanks was approximately 32,000 gallons. Approximately 10,700 gallons of oil and water mixture were recycled, 1,140 pounds of PCB flushings were incinerated off site, and 134 cubic yards of contaminated soil was disposed of in an approved *landfill.* In 1987, the EPA removed and segregated all the hazards. A *containment* tent was constructed for asbestos removal in the boiler room. A mobile laboratory was set up and monitoring and instrument surveying were conducted throughout the site. Samples were taken of soil and asbestos. The tanks and trucks were cleaned, disassembled, and disposed of. Approximately 2,000 cubic yards of contaminated soils were removed. All buildings and vehicles have been removed. In 1990, the EPA removed approximately 1,500 cubic yards of soil contaminated with lead and PCBs. Post-removal soil sampling was conducted; and the site was *backfilled* with clean fill and regraded.

Entire Site: The EPA will conduct a study at the site to ensure that all site risks have been addressed by the initial cleanup actions and to determine if additional work is required at the Arrcom site.

Environmental Progress

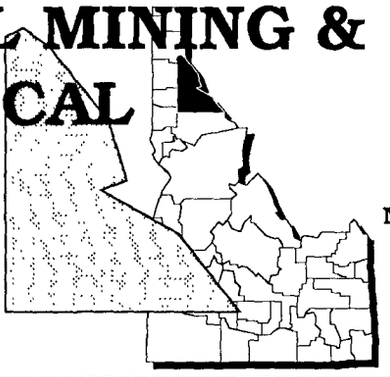


All of the contaminated containers, structures, and soils have been removed from the Arrcom site, thereby significantly reducing the threat of exposure to hazardous materials at the site. The EPA will continue to monitor site conditions to ensure the effectiveness of the remedies used to clean up the site.

BUNKER HILL MINING & METALLURGICAL

IDAHO

EPA ID# IDD048340921



REGION 10

CONGRESSIONAL DIST. 01

Shoshone County

Kellogg

Alias:

Northern Idaho Phosphate Company

Site Description

The Bunker Hill Mining and Metallurgical Complex site covers 21 square miles and encompasses the communities of Pinehurst, Page, Smelterville, Kellogg, and Wardner. The facility includes the Bunker Hill mine, a mill and concentrator, a lead smelter, an electrolytic zinc plant, a phosphoric acid and fertilizer plant, a cadmium plant, and sulfuric acid plants. Mining operations began in 1889, with lead smelting starting in 1917. During the majority of the time the smelters were operating, few environmental protection procedures or controls were used. As a result, there is widespread contamination of soil, water, and air from lead and other heavy metals. Prior to 1938, all liquid and solid residues of *mine tailings* from the complex were discharged directly into the Coeur d'Alene River and its tributaries. Thereafter, waste streams were directed to a large outwash plain located west of Kellogg and just north of the Bunker Hill complex. Lead smelter slag was deposited in a pile on the west end of this plain. On the east end of the plain, a central *impoundment* area was developed and was surrounded by a 70-foot high dike of mine tailings and waste rock. All liquid wastes, including mine pump *effluent*, were directed to the pond for settling and then discharged to the river. In the early 1970s, a central treatment plant was constructed on the edge of the pond to treat water before discharging it to the river; however, a considerable amount of *seepage* is lost to groundwater through the unsealed bottom of the pond. In 1973, public concern arose over the effects of chronic air pollution associated with Bunker Hill operations after a fire occurred in the baghouse of the smelter. Smokestack and other emissions from the smelting operations have contaminated the hillsides and other areas surrounding the complex, destroying large areas of vegetation. In the 1970s, the smelter owners began a revegetation program; however, large areas still remain unvegetated. All operations but the mine, mill, and concentrator are inactive at this time. The population of Shoshone County is approximately 19,200. The City of Kellogg, the largest community in the county with a population of approximately 3,400, is about a mile from the former Bunker Hill Complex. Most residences in the area use municipal water supplies obtained from surface water for drinking water. However, there may be some private wells in the area.

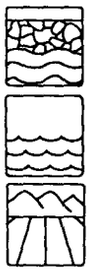
Site Responsibility: This site is being addressed through Federal and *potentially responsible parties'* actions.

NPL LISTING HISTORY

Proposed Date: 12/30/82

Final Date: 09/08/83

Threats and Contaminants



Groundwater, *sediments*, soils, and surface water contain heavy metals including lead, cadmium, and zinc. Surface water also contains *polychlorinated biphenyls* (PCBs). People may be exposed to health risks by touching, accidentally ingesting, or inhaling contaminated groundwater, soil, surface water, or sediments. In 1982, a significant number of Kokanee trout returned to the South Fork of the Coeur d'Alene River, which had been totally devoid of fish below Kellogg for many years. Improved conditions can be attributed to the installation of the treatment facilities for wastes that once were discharged untreated into the river. Because of elevated levels of lead in the blood of children around Kellogg, airborne lead was a cause for alarm in the early 1970s. Control measures subsequently taken by the company and intervention by both State and Federal officials reduced lead blood levels.

Cleanup Approach

The site is being addressed in four stages: immediate actions and three *long-term remedial phases* focusing on cleanup of the residential soils, non-populated areas, and the alleviation of household dust.

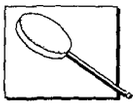
Response Action Status

Immediate Actions: In 1986, the EPA removed approximately 8,750 cubic yards of contaminated soils from sixteen public areas, such as parks and playgrounds, and stored it on site. About 7,150 cubic yards of *backfill*, 13,500 square feet of sod, and 1,132 tons of asphalt pavement were used in the renovation operations. The EPA stored all excavated contaminated soil in a temporary on-site storage facility. The waste soils were placed within a polyvinyl chloride envelope and surrounded with a *containment* dike to minimize surface *runoff*. This initial action was completed with the installation of a security fence around the temporary storage facility.

Residential Soils: In 1989, the EPA developed a residential soil removal program. Yards chosen for the program contained soil lead levels of 1,000 parts per million or greater and were households where children less than 4 years old or expectant mothers resided. 81 homes and 2 large apartment complexes had gardens replaced, and yards restored, graded, and reseeded. Actions are ongoing in the summer of 1990, and approximately 100 properties are expected to be completed. In addition, the State is conducting an investigation to determine the total type and extent of contamination in the residential areas, including home interiors. Once this investigation is completed in 1991, the most appropriate measures will be recommended for the residential cleanup.

continued

Response Action Status (cont'd)

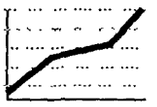


Non-Populated Areas: In 1989, Gulf Resources and Bunker Limited began initial actions in the non-populated areas, under monitoring by the EPA. Several thousand feet of fence were installed around the smelter, a copper dross flue dust pile was *stabilized*, and a substantial amount of deteriorating asbestos was removed. In addition, Gulf Resources, under EPA guidance, is conducting an investigation to determine the extent and type of contamination in the non-populated areas. The field work for the investigation has been completed, and a draft report of the investigation is expected in spring 1991.

Household Dust: In 1985, the State began an investigation to determine the extent of contamination in household dust. A pilot program was begun to determine if carpets and furniture can be adequately cleaned of the contaminated dust. Once the program is completed in 1992, and the results are analyzed, the most effective measures will be recommended for the household dust cleanup.

Site Facts: In 1987, the EPA and Gulf Resources signed an *Administrative Order* under which the company agreed to conduct an investigation of the site. In 1989, Gulf Resources and Chemical Corporation and Bunker Limited Partnership were ordered to begin immediate cleanup actions.

Environmental Progress

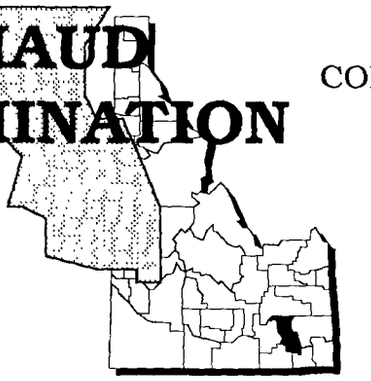


The EPA and the potentially responsible parties have conducted many cleanup efforts at the Bunker Hill site. Among these actions which have helped to reduce the potential for exposure to contaminants are: removal and storage of contaminated soil in a secure containment facility on the site, construction of a security fence around this area, treatment and restoration of 81 yards of the affected homes in the area, and the beginning of a household dust abatement pilot program. Further studies of the non-residential areas of the site and the type and extent of total contamination are currently being conducted and will result in permanent solutions for all areas of the site.

EASTERN MICHAUD FLATS CONTAMINATION

IDAHO

EPA ID# IDD984666610



REGION 10

CONGRESSIONAL DIST. 02

Bannock County
Near Pocatello

Aliases:
FMC Corporation
J.R. Simplot

Site Description

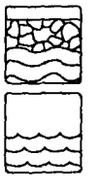
The Eastern Michaud Flats Contamination site covers 2,530 acres near Pocatello. The FMC Corporation has operated a phosphate processing plant on the site producing approximately 250 million pounds of elemental phosphorus per year from two million tons of shale, silica, and coke. The wastes generated from this process include waste slag, ferrous-phosphate solid residuals, precipitator dust, phossy water, slag cooling water, non-contact cooling water, and calciner scrubber water, all of which contain heavy metals. Waste slag has in the past been used as highway construction materials or has been deposited on two large on-site waste piles. The ferrous-phosphate residuals are crushed, stored on bare ground, and later sold for its vanadium, iron, and chromium content. The precipitator dust slurry and cooling and process water are pumped to 18 waste ponds; 8 of these are unlined. The J.R. Simplot vicinity of the site is located adjacent to the FMC facility. Since 1944, Simplot has produced concentrated phosphoric acid, triple super phosphate, ammonium phosphate, and diamonium phosphate from phosphate-containing ore. Ground phosphate rock is digested with sulfuric acid to produce phosphoric acid and calcium sulfate (gypsum). Gypsum is pumped as a thick slurry to a stack, which presently contains approximately 28 million cubic yards of waste. A former gypsum stack was abandoned in 1966. The Simplot facility currently utilizes a wastewater treatment system consisting of three lined ponds and two unlined ponds to collect and treat all wastewater not recycled. In 1976, a drinking water well downhill from the FMC facility was condemned by the State due to elevated arsenic levels. Contaminants have been found in the deep confined *aquifer*. Approximately 55,000 people use drinking water from public and private wells within 3 miles of the site. The closest private well is about 800 feet from an on-site *lagoon*. Groundwater is also used to irrigate about 2,000 acres of forage crops within 3 miles of the site. The Michaud Flats are on the Snake River Plain and are bordered by the American Falls Reservoir, the Portneuf River, Rock Creek, and on the south by the foothills of the Deep Creek Mountains and Bannock Range. The Portneuf River is used for fishing, recreation, and irrigation downstream from the site.

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

NPL LISTING HISTORY

Proposed Date: 05/05/89

Threats and Contaminants



Groundwater contains heavy metals such as arsenic, cadmium, and selenium. *Sediments* contain similar heavy metals, with the addition of copper, lead, vanadium, and zinc. Contaminants are *leaching* from the unlined waste ponds into the shallow and deep groundwater aquifers. People who drink or touch the contaminated groundwater or sediments may be at risk. There is no alternative, unthreatened water supply readily available to private well users outside of the Pocatello city limits.

Cleanup Approach

The site is being addressed in a single *long-term remedial phase* directed at cleanup of the entire site.

Response Action Status

Entire Site: In 1991, the parties potentially responsible for site contamination, under EPA monitoring, are scheduled to conduct a study to determine the type and extent of contamination. Once the study is completed, the most appropriate remedies will be recommended for site cleanup.

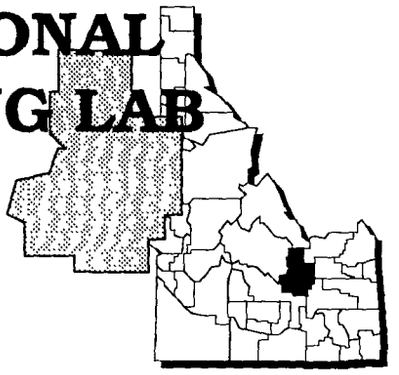
Environmental Progress

After proposing the Eastern Michaud Flats site for listing on the NPL, the EPA performed preliminary evaluations and determined that no immediate actions were necessary while the investigations leading to the selection of a permanent remedy for the site contamination are taking place.

IDAHO NATIONAL ENGINEERING LAB (US DOE)

IDAHO

EPA ID# ID4890008952



REGION 10

CONGRESSIONAL DIST. 02

Butte County

Near Idaho Falls

Alias:
Idaho Operations Office

Site Description

The Idaho National Engineering Laboratory (INEL) site, now owned by the U.S. Department of Energy, covers 890 square miles in southeastern Idaho, near Idaho Falls. The Atomic Energy Commission set up the National Reactor Testing Station on the grounds in 1949 to build, test, and operate various nuclear reactors, fuel processing plants, and support facilities. Earlier, parts of the site were used by the Department of Defense. In 1974, the facility assumed its present name to reflect the broad scope of engineering activities it conducts. INEL consists of a number of major facilities, including the Test Reactor Area (TRA), Central Facilities Area, and Idaho Chemical Processing Plant. These three facilities and others at INEL contribute contaminants to the Snake River Plain Aquifer and draw water from the *aquifer.* Approximately 17,300 tons of hazardous materials were deposited at the TRA through an injection well extending 100 feet into the Snake River Plain Aquifer and also into numerous unlined ponds and an earthen ditch. Waste materials disposed of in this area included chromium-contaminated cooling tower blow-down water, waste solvents, sulfuric acid, *radionuclides,* and laboratory wastes. The Snake River Plain Aquifer is the source of all water used at the INEL and is an important water resource in southeastern Idaho. Although the three adjacent facilities at the INEL are several miles apart, they will be considered together for this site cleanup due to the extent of chromium contamination. Over 3,000 people draw water from wells within a 3-mile radius of the site. The facility employs approximately 10,500 people. The nearest large population center is Idaho Falls, which is approximately 30 miles east of the site.

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

NPL LISTING HISTORY

Proposed Date: 07/14/89

Final Date: 11/21/89

Threats and Contaminants

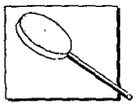
Hexavalent chromium has been detected in monitoring and drinking water wells completed in the Snake River Plain Aquifer at the Test Reactor and Central Facilities Area at the INEL. Acetone, sodium hydroxide, sulfuric acid, and *volatile organic compounds* (VOCs) were detected to a lesser degree. Tests conducted in 1987 by INEL and the U.S. Geological Survey at the Radioactive Waste Management complex on the site indicate that carbon tetrachloride and *trichloroethylene* (TCE) have *migrated* from where they were buried to the Snake River Plain Aquifer. Potential health risks may exist from drinking or coming in direct contact with the contaminated groundwater.

Cleanup Approach

The site is being addressed in four *long-term remedial phases* focusing on the Test Reactor area, the Central Facilities area, the Chemical Processing Plant, and the Radioactive Waste Management Complex.

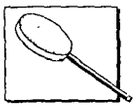
Response Action Status

Test Reactor Area: An investigation into the extent of contamination in this area and a study to identify alternative technologies for the cleanup are scheduled to begin in 1990. The EPA has reviewed a draft of the investigative work plan.



Central Facilities Area: An investigation into the extent of contamination in the Central Facilities area and a study to identify alternative technologies for the cleanup are scheduled to begin in 1991.

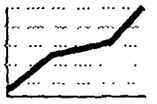
Chemical Processing Plant: An investigation into the nature and extent of contamination in the Chemical Processing area and a study to identify alternative technologies for the cleanup are expected to begin in 1990. Once the studies have been completed, the most effective remedies will be recommended.



Radioactive Waste Management Complex: An investigation into the extent and types of contamination in this area and a study to identify alternative technologies for the cleanup are scheduled to begin in 1990. A draft work plan for the investigation is under review.

Site Facts: In July 1987, the EPA, INEL, and the U.S. Geological Survey signed a *Consent Order* calling for site investigation and cleanup. Currently, the EPA has 12 groundwater and 12 monitoring, analysis, and testing plans under EPA and State review.

Environmental Progress

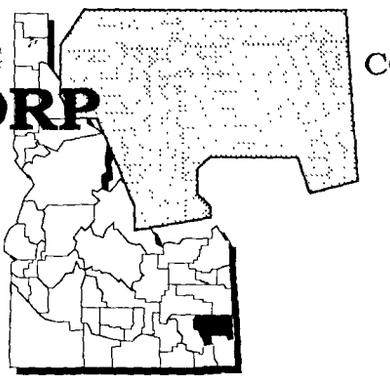


After adding the Idaho National Engineering Lab site to the NPL, the EPA conducted preliminary studies into the site conditions and determined that the site does not pose an imminent threat to the surrounding population or the environment, while investigations leading to the selection of final cleanup alternatives for the site are being completed.

KERR-MCGEE CHEMICAL CORP

IDAHO

EPA ID# IDD041310707



REGION 10

CONGRESSIONAL DIST. 02

Caribou County

1 mile north of Soda Springs

Alias:
Soda Springs Plant

Site Description

The Kerr-McGee Chemical Corporation site covers 158 acres and is located 1 mile north of Soda Springs. The site is in a broad, flat valley near the western base of the Aspen Range. From 1963 to 1988, the plant generated a number of liquid wastes and stored them in on-site ponds. The Monsanto Chemical Company, another large industrial complex nearby that is also on the National Priorities List (NPL), supplied Kerr-McGee with the by-product ferrous-phosphate solids that were processed into vanadium pentoxide. The two largest on-site ponds hold over 12,000 cubic yards of waste. The hazardous chemicals found in these ponds are vanadium, arsenic, copper, and silver. Groundwater beneath the site has been affected by the chemicals in the holding ponds. An on-site monitoring well also shows contamination and is located near the drinking water supply for the plant. Approximately 23 people live within a mile of the site, and approximately 3,000 people live within 3 miles of the site. Public springs and private wells that provide drinking water to over 3,000 people and a private well that irrigates 165 acres are located within 3 miles of the site. Significant agricultural crops in the area include wheat and hay.

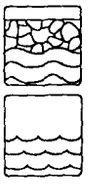
Site Responsibility: This site is being addressed through a combination of Federal and *potentially responsible parties'* actions.

NPL LISTING HISTORY

Proposed Date: 05/05/89

Final Date: 10/04/89

Threats and Contaminants



On-site monitoring wells and ponds contain vanadium, arsenic, copper, and silver, according to tests conducted as part of an EPA site inspection in 1987. Potential health risks may exist by drinking contaminated groundwater or direct contact with or inhalation of blowing dust. The topography in the area prohibits the *migration* of contaminants to surface water off the site.

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: An investigation to determine the nature and extent of contamination at the site is expected to begin in 1990. Once the investigation is complete, the EPA will recommend the most effective remedy for the site.

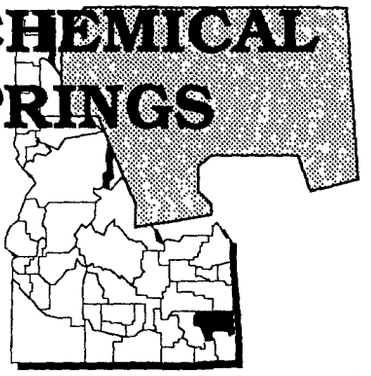
Environmental Progress

After listing the Kerr-McGee site on the NPL, the EPA determined, based on preliminary evaluations, that no immediate cleanup actions were required while the extensive investigation leading to the selection of the final cleanup remedies for the site is taking place.

MONSANTO CHEMICAL CO. (SODA SPRINGS PLANT)

IDAHO

EPA ID# IDD081830994



REGION 10
CONGRESSIONAL DIST. 02
Caribou County
North of Soda Springs

Site Description

The Monsanto Chemical Company plant encompasses 530 acres and processes locally mined phosphate ore to produce elemental phosphorus. The facility consists of over a dozen administrative and processing buildings plus ore piles, slag piles, by-product materials, surface *impoundments* and a waste *landfill.* The site was purchased by Monsanto in 1952. Approximately, a million tons of phosphate ore are processed through the plant each year. Ore is stockpiled on site prior to being processed for introduction into electric arc furnaces along with coke and silica. All process waters, with the exception of non-contact cooling water, are held and treated on site and then reused. The non-contact cooling water is discharged from the site to Soda Creek, which is used in agricultural irrigation. The process wastes, previously stored in unlined ponds or impoundments, have been implicated as sources of contamination to the local groundwater. Other potential sources of pollution include waste slag, windborne dust emissions, and air emissions from ore processing and the electric arc furnaces. All currently active process wastewater impoundments have been lined. Soil from the old ponds has been removed and *backfilled* with clean cover material. A network of approximately 52 monitoring wells is maintained to assess *plume migration.* Land use in the vicinity of the Monsanto facility is primarily industrial and agricultural. The plant is staffed with about 400 employees, and 3,100 residents live within 3 miles of the site. Most of the residents' water is supplied by the Town of Soda Springs from springs located north of the plant. The closest surface water is Soda Creek, located approximately 2,000 feet west of the facility. Many of the nearby residents depend on domestic wells, but most are *upgradient* of the site.

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

NPL LISTING HISTORY
Proposed Date: 05/05/89

Threats and Contaminants

Groundwater underlying the site and the surrounding vicinity has been contaminated with cadmium, selenium, vanadium, and fluoride. A health threat may exist for individuals who use or come into direct contact with contaminated water.

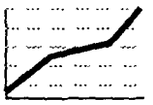
Cleanup Approach

The site is being addressed in a single *long-term remedial phase* directed at cleanup of the entire site.

Response Action Status

Entire Site: An investigation into the type and extent of contamination was scheduled to begin in 1990. At the conclusion of the investigation, scheduled for 1994, recommendations of effective alternatives for the final cleanup of the site will be made.

Environmental Progress

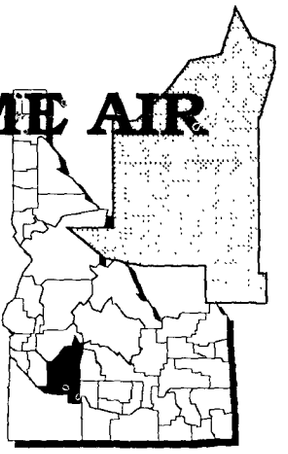


After proposing the Monsanto site for inclusion on the NPL, the EPA performed preliminary evaluations of the site conditions and determined that the site does not pose an imminent threat to the surrounding communities or the environment while the investigation leading to the selection of the final cleanup alternatives is taking place.

MOUNTAIN HOME AIR FORCE BASE

IDAHO

EPA ID# ID3572124557



REGION 10

CONGRESSIONAL DIST. 02

Elmore County

Southwest of Mountain Home

Alias:

USAF Mountain Home Air Force Base

Site Description

Mountain Home Air Force Base was established in 1943 and is located on approximately 9 square miles of land on a plateau southwest of Mountain Home. The base has been under the control of the Tactical Air Command since 1965. Hazardous materials and wastes have been used and generated at Mountain Home for aircraft maintenance and industrial operations. Prior to 1969, base wastes were disposed of by several methods that were accepted practices at that time, including incineration and landfilling of solid wastes, discharge of liquid wastes to sanitary sewers, and the use of waste oil for road oiling. The facilities of concern at the base include two abandoned landfills, a waste oil disposal site, four abandoned and one existing fire training areas, and an entomology shop yard where pesticides were rinsed from application equipment. Wastes disposed of at these locations include waste oils, solvents, and pesticides. The area around the base is primarily agricultural, and wells supporting approximately 14,000 people and land irrigation are 3 miles from hazardous substances on the base. On-base water supply wells are the only source of drinking water for base residents and workers.

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

NPL LISTING HISTORY

Proposed Date: 07/14/89

Threats and Contaminants

Bromoform from solvent use was detected in on-site drinking water wells in 1987. *Trichloroethylene* (TCE), lead, and cadmium have also been found in the groundwater. Contaminants in wastes on site included the pesticides DDT, dieldrin, and lindane, carbon tetrachloride and bromoform. Drinking or coming into direct contact with contaminated groundwater resources may pose a health risk.

Cleanup Approach

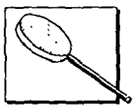
The site is being addressed in four *long-term remedial phases* focusing on cleanup of the abandoned landfills, the waste oil disposal site, the fire training areas, and the entomology shop.

Response Action Status

Abandoned Landfills: An investigation into the type and extent of contamination at this portion of the base was begun in 1987. At the conclusion of the investigation, recommendations will be made for the most effective alternatives for cleaning up the landfills.

Waste Oil Disposal Site: An investigation into the type and extent of contamination at the waste oil disposal area will be conducted. At the conclusion of the investigation, recommendations will be made for the appropriate alternatives for cleaning up the area.

Fire Training Areas: There will be an investigation into the type and extent of contamination at the fire training area. Once the investigation has been completed, recommendations will be made for the most effective cleanup alternatives.



Entomology Shop: The Air Force will conduct an investigation into the type and extent of contamination in the shop yard. Upon the completion of this investigation, a selection of the most effective alternatives for cleaning up the site will be made.

Site Facts: The Mountain Home Air Force Base is participating in the *Installation Restoration Program* (IRP). Under this program, established in 1978, the Department of Defense (DOD) seeks to identify, investigate, and contain contamination from hazardous materials at military or DOD installations.

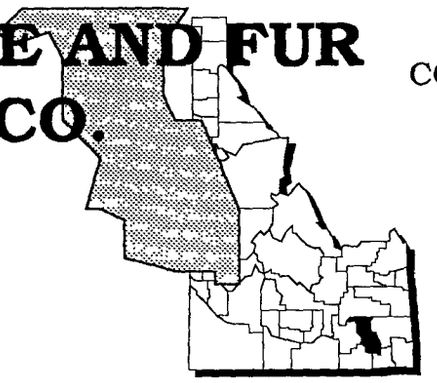
Environmental Progress

The Air Force, under guidance from the EPA, is conducting investigations at several contamination areas which will lead to the selections of the most appropriate permanent cleanup alternatives for the various contaminated areas of the Mountain Home Air Force Base site.

PACIFIC HIDE AND FUR RECYCLING CO.

IDAHO

EPA ID# IDD098812878



REGION 10
CONGRESSIONAL DIST. 02
Bannock County
Pocatello

Site Description

The Pacific Hide and Fur Recycling Company site covers approximately 10 acres near commercial and residential areas in Pocatello. The site has been used as a metal resalvaging yard from the late 1950s to 1983. Most of the site has been used for the disposal of scrap metal including vehicles, truck bodies, machinery, wire rope, tin cans, and other debris. At the center of the site is a 20-foot deep gravel pit where battery casings, spent automotive oil filters, and other debris were disposed of, as well as transformers and capacitors containing *polychlorinated biphenyls* (PCBs). The Portneuf River is located about 1,100 feet south of the site. The population of the City of Pocatello is 44,900 people. The city is supplied with drinking water from wells within 3 miles of the site. Private and industrial wells are also supplied by the *aquifer* that lies under the site.

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

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

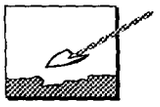
Threats and Contaminants

Soils, both on and off the site, were found to be contaminated with PCBs from prior waste disposal activities. People may suffer adverse health effects from accidentally ingesting or making direct contact with contaminated soil.

Cleanup Approach

The 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 1983, the EPA removed 593 capacitors, 30 cubic yards of contaminated soils, and 21 drums containing hazardous materials. Monitoring wells and a security fence were also installed. The decontamination of large scrap materials was accomplished in late 1989.

Entire Site: In 1988, the following remedies were selected for the site: (1) excavation of soil to an average of 1 1/2 feet followed by screening to separate large contaminated materials and testing for further contamination; (2) *stabilization* of a portion of the soil using an immobilization technique; (3) construction of a bottom clay liner, where necessary; (4) *capping* of the stabilized and remaining materials; and (5) deed and access restrictions. If the fixation technology is found to be impracticable, on-site containment will be implemented as the final remedial action.

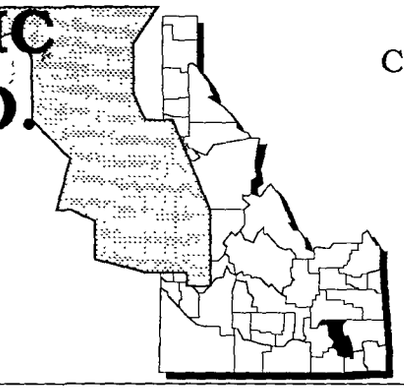
Environmental Progress

By conducting an emergency removal action and constructing a security fence to restrict access to the Pacific Hide and Fur Recycling site, the potential for exposure to hazardous materials was significantly reduced. The final remedy selection has been made, and the design and specification phase is now under way.

UNION PACIFIC RAILROAD CO.

IDAHO

EPA ID# IDD055030852



REGION 10
CONGRESSIONAL DIST. 02
Bannock County
Pocatello

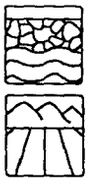
Site Description

The Union Pacific Railroad Company site comprises about 3/4 acre in Pocatello. From 1961 until 1983, Union Pacific dumped *sludge* from its oil/water separation plant into a 1/2-acre unlined sludge pit. The Pacific Hide and Fur site, another National Priorities List (NPL) site, is located approximately 300 yards from the pit. There are approximately 45,000 people living within 4 miles of the site. Private and municipal wells are located within a mile of the site. Private wells in the area are screened in the lower *aquifer.* The municipal wells for the City of Pocatello are located within three miles of the site.

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

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

Threats and Contaminants



Private drinking water wells are contaminated with *volatile organic compounds* (VOCs) including *trichloroethylene* (TCE). Low levels of solvent, TCE, and tetrachloroethylene were found in groundwater near the sludge pit. The sludge/soil material in the pit area is contaminated with heavy metals including cadmium, lead, chromium, arsenic, zinc, and mercury, and organic solvents. The sludge pit area is completely fenced, restricting public access. The potential health threat of greatest concern to people is drinking contaminated groundwater or performing household activities with untreated groundwater from private wells, and the inhalation of contaminated particles. The concentrations of TCE and tetrachloroethylene in the groundwater are well below standards for drinking water, and these chemicals are not threatening the public water supply in the area. Studies have also confirmed that *runoff* from the site does not flow from the sludge pit into the nearby Portneuf River.

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 Union Pacific Railroad (UPRR) voluntarily began an investigation of the sludge pit in 1985. Additional field work necessary for the investigation began in 1988. The field work consisted of the construction of additional groundwater monitoring wells, soil and sludge borings, soil, sludge, and groundwater sampling, and river flow measurements. UPRR is in the process of finalizing their report. All work conducted by UPRR has been under monitoring by the EPA and the State. The investigation will define the contaminants of concern and will recommend alternatives for the final cleanup. The investigation is planned to be completed in 1990.

Site Facts: In 1988, the EPA and the UPRR signed an *Administrative Order* requiring UPRR to conduct a study of the nature and extent of contamination at the site and to recommend cleanup alternatives.

Environmental Progress

The Union Pacific Railroad is currently finalizing a report of the extensive site studies performed with guidance from the EPA and the State. The results of the investigations will lead to the final selection and design of the permanent cleanup alternatives for the site. While these activities are taking place, the site does not pose an imminent threat to the surrounding population or the environment.

GLOSSARY:

TERMS USED IN THE FACT SHEETS

This glossary defines the italicized terms used in the site fact sheets for the State of Idaho. The terms and abbreviations contained in this glossary are often defined in the context of hazardous waste management as described in the site fact sheets, and apply specifically to work performed under the Superfund program. Therefore, these terms may have other meanings when used in a different context.

Administrative Order On Consent: A legal and enforceable agreement between EPA and the parties potentially responsible for site contamination. Under the terms of the Order, the potentially responsible parties 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.

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.

Backfill: To refill an excavated area with removed earth; or the material itself that is used to refill an excavated area.

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 is generally mounded or sloped so water will drain off.

Consent Order: [see Administrative Order on Consent].

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

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

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

GLOSSARY

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.

Lagoon: A shallow pond where sunlight, bacterial action, and oxygen work to purify wastewater. Lagoons are typically used for the storage of wastewaters, sludges, liquid wastes, or spent nuclear fuel.

Landfill: A disposal facility where waste is placed in or on land.

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.

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 a number of these phases.

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

Mine (or Mill) Tailings: A fine, sandy residue left from ore milling operations. Tailings often contain high concentrations of lead and arsenic or other heavy metals.

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.

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.

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

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. This means that PRPs may sign a consent decree or administrative order on consent [see Administrative Order on Consent] to participate in site cleanup activity without admitting liability.

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, which is the gaseous form of radium, decays to form alpha particle radiation, which can be easily blocked by skin. However, it can be inhaled, which allows alpha particles to affect unprotected tissues directly and thus cause cancer. Uranium, when split during fission in a nuclear reactor, forms more radionuclides which, when ingested, can also cause cancer. Radiation also occurs naturally through the breakdown of granite stones.

Runoff: The discharge of water over land into surface water. It can carry pollutants from the air and land into receiving waters.

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

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.

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

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.

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 also Volatile Organic Compounds].

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

Volatile Organic Compounds (VOCs): VOCs are made 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.