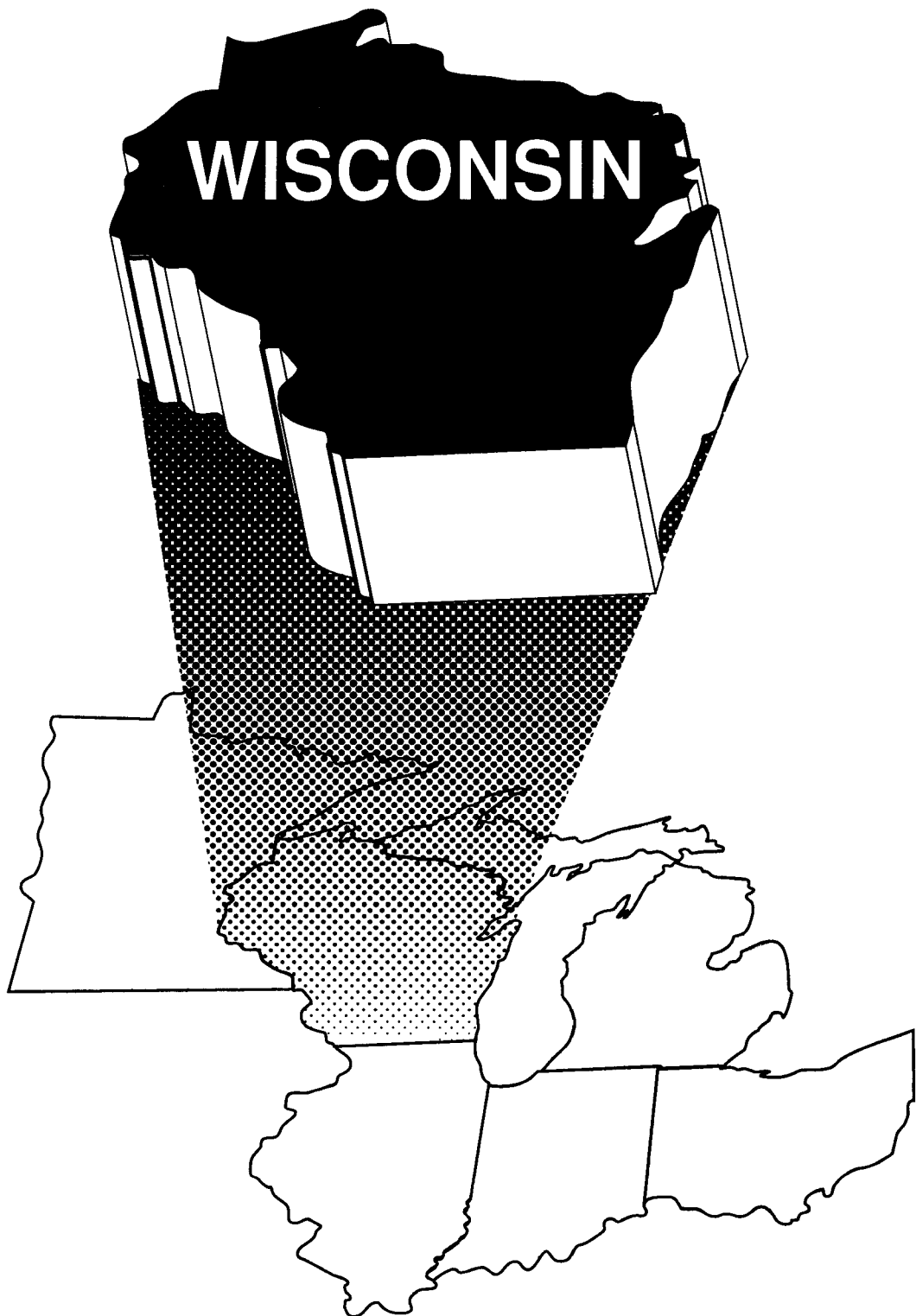




Superfund: Progress at National Priority List Sites

Wisconsin 1994 Update



NATIONAL PRIORITIES LIST SITES:

WISCONSIN

U.S. Environmental Protection Agency
Region 5, Library (PL-12J)
77 West Jackson Boulevard, 12th Floor
Chicago, IL 60604-3590

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF SUPERFUND
WASTE MANAGEMENT DIVISION
REGION 5
CHICAGO, ILLINOIS 60604**

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INTRODUCTION

A BRIEF OVERVIEW OF SUPERFUND

During the second half of the Twentieth Century, the environmental consequences of more than 100 years of industrialization in the United States became increasingly clear. Authors such as Rachel Carson wrote passionately about the often-hidden environmental effects of our modern society's widespread use of chemicals and other hazardous materials. Their audience was small at first, but gradually their message spread. Growing concern turned to action, as people learned more about the environment and began to act on their knowledge.

The 1970s saw environmental issues burst onto the national scene and take hold in the national consciousness. The first Earth Day was observed in 1970, the year that the U.S. Environmental Protection Agency (EPA) was founded. By the end of the 1970s, Love Canal in New York and the Valley of the Drums in



Kentucky had entered the popular lexicon as synonyms for pollution and environmental degradation.

Superfund Is Established

The industrialization that gave Americans the world's highest standard of living also created problems that only a national program could address. By 1980, the U.S. Congress had passed numerous environmental laws, implemented by the EPA, but many serious hazardous waste problems were slipping through the cracks.

Responding to growing concern about public health and environmental threats from uncontrolled releases of hazardous materials, the U.S. Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Popularly known as Superfund, CERCLA had one seemingly simple job—to uncover and clean up hazardous materials spills and contaminated sites.

A Big Job

Few in Congress, the EPA, the environmental community, or the general public knew in 1980 just how big the nation's hazardous materials problem is. Almost everyone thought that Superfund would be a short-lived program requiring relatively few resources to clean up at most a few hundred sites. They were quite mistaken.

As the EPA set to work finding sites and gauging their potential to harm people and the environment, the number of sites grew. Each discovery seemed to lead to another, and today almost 36,000 hazardous waste sites have been investigated as potential hazardous waste sites. They are catalogued in the EPA's computerized database, CERCLIS (for the Comprehensive Environmental Re-

INTRODUCTION

sponse, Compensation, and Liability Information System).

The damage to public health and the environment that each site in CERCLIS might cause is evaluated; many sites have been referred to State and local governments for cleanup. The EPA lists the nation's most serious hazardous waste sites on the National Priorities List, or NPL. (These Superfund sites are eligible for federally-funded cleanup, but whenever possible the EPA makes polluters pay for the contamination they helped create.) The NPL now numbers 1,275 sites, with 50 to 100 added each year. By the end of the century, the NPL may reach as many as 2000 sites.

Superfund faces some of the most complex pollution problems ever encountered by an environmental program. Improperly stored or disposed chemicals and the soil they contaminate are one concern. More difficult to correct are the wetlands and bays, and the groundwater, lakes, and rivers often used for drinking water that are contaminated by chemicals spreading through the soil or mixing with storm water runoff. Toxic vapors contaminate the air at some sites, threatening the health of people living and working near by.

Superfund aims to control immediate public health and environmental threats by tackling the worst problems at the worst sites first. Wherever possible, Superfund officials use innovative treatment techniques many developed or refined by the EPA to correct hazardous materials problems once and for all. Many of the treatment techniques they use did not exist when the program was created.

The EPA Administrator had challenged Superfund to complete construction necessary for cleanup work at 200 NPL sites by the end of the 1992 federal fiscal year. By September 30, 1992, the end of fiscal year 1992, construction had been completed at a total of 149 NPL sites. By September 30, 1993, the end of fiscal year 1993, construction had been completed at 217 sites, well in excess of the Administrator's target of 200. The Superfund program now projects completing construction at over 650 sites by the year 2000.

Quick Cleanup at NON-NPL Sites

Long-standing hazardous waste sites are not Superfund's only concern. The EPA also responds to hazardous spills and other emergencies, hauling away chemicals for proper treatment or disposal. Superfund teams perform or supervise responses at rail and motor vehicle accidents, fires, and other emergencies involving hazardous substances. They also evacuate people living and working near by, if necessary, and provide clean drinking water to people whose own water is contaminated. Removal crews also post warning signs and take other precautions to keep people and animals away from hazardous substances.

Quick Cleanups, or Removals are not limited to emergencies. When cleanup crews at contaminated sites find hazardous substances that immediately threaten people or the environment, they act right away to reduce the threat or to remove the chemicals outright. As the EPA implements the Superfund Accelerated Cleanup Model (SACM), more and more sites will undergo quick cleanups, and many of these will be cleaned up completely.

INTRODUCTION



without ever being included on the NPL. (See "Streamlining Superfund Accelerated Cleanup Model.")

Some of Superfund's most significant gains in public health and environmental protection have been won by the removal program. As of October 1, 1993, the Emergency Response Program in Region V has lost approximately 500 removal completions since Superfund was established.

Public Participation

Superfund is unique among federal programs in its commitment to citizen participation. Although the EPA is responsible for determining how dangerous a site is and how best to clean it up, the Agency relies on citizen input as it makes these decisions.

Probably, the most important component of any NPL site is public participation. Community Involvement has played a significant role in the development of cleanup activities at a site. Although most proposals for cleanup activities are brought forth by the agency, it is usually the citizen's input that gives the "stamp of approval" on the cleanup plan.

Residents also comment on EPA cleanup plans by stating their concerns and preferences at public meetings and other forums and in formal written comments to Agency proposals. The EPA takes and concerns seriously, and has modified many proposals in response to local concerns. For ultimately, it is the community and its citizens that will live with the results of the EPA's decisions and actions; it is only fair that citizens participate in the process.

A Commitment to Communication

The Superfund program is very serious about public outreach and communication. Community relations coordinators are assigned to each NPL site to help the public understand the potential hazards present, as well as, the cleanup alternatives. Local information repositories, such as libraries or other public buildings, have been established near each NPL site to ensure that the public has an opportunity to review all relevant information and the proposed cleanup plans. The individual State volumes contain summary fact sheets on NPL sites in each State and territory. Together, the fact sheets provide a concise report on site conditions and the progress made toward site cleanups as of May 1994. The EPA revises these volumes periodically to provide and up-to-date record of program activities. A glossary of terms relating to hazardous waste management and Superfund site cleanup is provided at the back of this book.

Superfund is, of course, a public program, and as such it belongs to everyone of us.

INTRODUCTION

STREAMLINING SUPERFUND: THE SUPERFUND ACCELERATED CLEANUP MODEL

Historically, critics and supporters alike have measured Superfund's progress by the number of hazardous waste sites deleted from the NPL. Although easy enough to tally, this approach does not recognize the breadth of risk reduction attained by Superfund. First, it doesn't account for the early remedial actions conducted at the nation's worst hazardous waste sites, which occurs well before site deletion. Second, it ignores the significant contribution to reducing risks to human health and the environment by the Removal Program.

In renewing Superfund's commitment to quick and early response actions, EPA has undertaken an initiative to streamline the Superfund program. The Superfund Accelerated Cleanup Model (SACM) emphasizes the conduct of early actions, such as drum removal and source control, while long-term actions, such as groundwater contamination, are appropriately studied. In addition, SACM envisions an integrated site assessment process whereby the different Superfund assessments are integrated into a single process. Integrated assessments will reduce the time and resources required to evaluate a site and assess its threats to human health and the environment. This way, immediate public health and environmental threats will be addressed while long-term cleanups are being planned.

Emergencies such as train derailments and motor vehicle accidents will continue to be handled expeditiously. Teams of highly trained technicians will swing into action right away, coordinating the cleanup and removal of hazardous substances to

ensure public safety as quickly as possible.

BREAKING WITH TRADITION

The traditional Superfund process begins with a lengthy phase of study and site assessment, but SACM will save time by combining separate, yet similar, activities.

Each EPA Region will form a Regional Decision Team (RDT) composed of program managers from the Removal and Remedial program, the Office of Regional Counsel, Office of Public Affairs, Environmental Science Division, and the States. The RDT will be responsible for making decisions on sites based on recommendations by Site Assessment Teams (SATs). The SATs are comprised of an RPM, OSC, SAM, staff attorney, State representative, and community relations coordinator. Other experts such as ecologists and toxicologists are brought in on the SATs on an as needed basis. SATs develop site specific strategies potentially utilizing Removal (i.e. early action) and/or Remedial (i.e. long-term action) statutory authorities.

In many instances, SATs will recommend to the RDT the initiation of a study for a long-term action while work begins on an early action to eliminate an immediate threat to public health and the environment.

Early Actions include taking precautions to keep contaminants from moving off the site and restricting access to the site. Early Actions can eliminate most, if not all, risk associated with a Superfund site. Consequently, early public involvement is

BREAKING WITH TRADITION

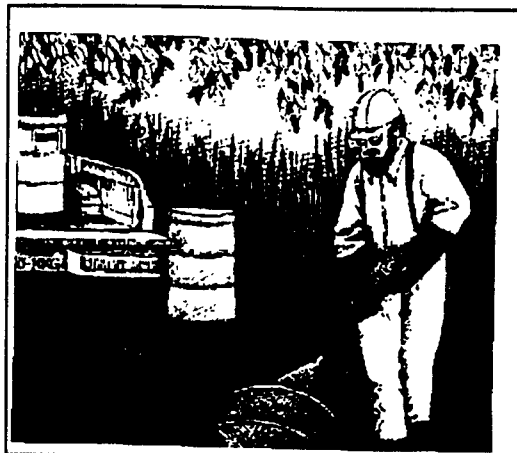
cont'

participation during the site assessment process and Early Actions.

LONG-TERM SOLUTIONS

While Early Actions can correct many hazardous waste problems---and provide the bulk of public health and environmental protection some contamination will take longer to correct. Cleanups of mining sites, wetlands, estuaries, and projects involving incineration of contaminants or restoration of ground water can take far longer than the three to five years envisioned for Early Actions. Under the SACM paradigm, the conduct of the long-term cleanup action will be similar to the present process.

Also under SACM, the EPA will continue its pursuit of potentially responsible parties who may have caused or contributed to site contamination. Expedited enforcement and procedures for negotiating potentially responsible party settlements will secure their participation. Superfund personnel will continue to oversee clean-up work performed by potentially responsible parties.



INTRODUCTION

HOW SUPERFUND WORKS

Each Superfund site presents a different set of complex problems. The same hazardous materials and chemicals often contaminate many sites, but the details of each site are different. Almost always, soil is contaminated with one or more chemicals. Their vapors may taint the air over and around the site. Contaminants may travel through the soil and reach underground aquifers which may be used for drinking water, or they may spread over the site to contaminate streams, ponds, and wetlands. The contaminating chemicals may interact with each other, presenting even more complicated cleanup problems.

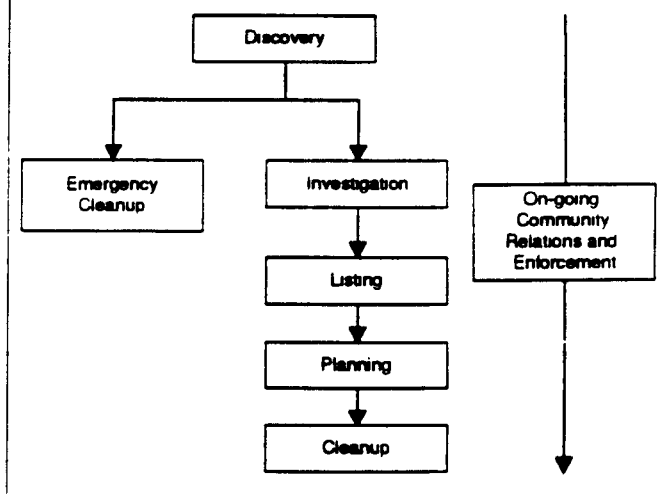
Superfund's cleanup process is arduous and exacting. It requires the best efforts of hundreds of experts in science and engineering, public health, administration and management, law, and many other fields.

The average NPL site takes from seven to ten years to work its way through the system, from discovery to the start of long-term cleanup. Actual cleanup work can take years, decades if contaminated groundwater must be treated. Of course, imminent threats to public health or the environment are corrected right away.

The diagram to the right presents a simplified view of the cleanup process. The major steps in the Superfund process are:

- Detailed studies to determine whether conditions are serious enough to add the site to the National Priorities List of sites eligible for federally funded cleanup under Superfund;
 - Selection, design, and implementation of a cleanup plan, after a thorough review of the most effective cleanup options, given site conditions, contaminants present, and their potential threat to public health or the environment.
 - Follow-up to ensure that the cleanup work done at the site continues to be effective over the long term.
- Site discovery and investigation to identify contaminants and determine whether emergency action is required;
 - Emergency site work such as removing contaminants for proper treatment or disposal, and securing the site to keep people and animals away, if warranted by conditions at the site;
 - Site evaluation to determine how people living and working nearby, and the environment, may be exposed to site contaminants;

The Superfund Process



From the earliest stages, EPA investigators work hard to identify those responsible for the contamination. As their responsibility is established, the EPA negotiates with these "responsible parties" to pay for cleaning up the problem they helped create. This "enforcement first" policy saves Superfund Trust Fund monies for use in cleanups where the responsible parties cannot be identified, or where they are unable to fund cleanup work.

THE VOLUME

How to Use the State Book

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

legal efforts to involve polluters responsible for site contamination and community concerns.

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

How Can You Use This State Book?

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

Definitive information on a site can help citizens sift through alternatives and make decisions. To make good choices, you must know what the threats are and how the EPA

intends to clean up the site. You must understand the cleanup alternatives being proposed for site cleanup and how residents may be affected by each one. You also need to have some idea of how your community intends to use the site in the future, and you need to know what the community can realistically expect once the cleanup is complete.

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

THE VOLUME

NPL LISTING HISTORY

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

SITE RESPONSIBILITY

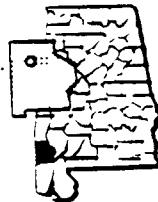
Identifies the Federal, State, and/or potentially responsible parties taking responsibility for cleanup actions at the site.

ENVIRONMENTAL PROGRESS

Summarizes the actions to reduce the threats to nearby residents and the surrounding environment and the progress towards cleaning up the site.

SITE NAME STATE

EPA ID# ABC0000000



EPA REGION XX
COUNTY NAME
LOCATION

Other Names:

Site Description

THIS IS A SUMMARY OF THE INFORMATION THAT HAS BEEN PROVIDED TO THE EPA BY THE STATE OF TEXAS. THE INFORMATION IS BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF THE REPORT. THE INFORMATION IS NOT GUARANTEED TO BE COMPLETE OR ACCURATE. THE INFORMATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE INFORMATION IS NOT TO BE USED FOR ANY OTHER PURPOSES.

A

Site Responsibility:

THE FOLLOWING ARE THE PARTIES THAT HAVE BEEN IDENTIFIED AS POTENTIALLY RESPONSIBLE FOR THE CLEANUP OF THE SITE. THE PARTIES ARE LISTED IN ORDER OF THEIR POTENTIAL LIABILITY.

NPL Listing History

Proposed: 10/10/XX
Final: 10/10/XX

Threats and Contaminants



THE FOLLOWING ARE THE THREATS AND CONTAMINANTS THAT HAVE BEEN IDENTIFIED AT THE SITE. THE THREATS AND CONTAMINANTS ARE LISTED IN ORDER OF THEIR POTENTIAL LIABILITY.

B

Cleanup Approach

THE FOLLOWING ARE THE ACTIONS THAT HAVE BEEN TAKEN TO REDUCE THE THREATS TO NEARBY RESIDENTS AND THE SURROUNDING ENVIRONMENT. THE ACTIONS ARE LISTED IN ORDER OF THEIR POTENTIAL LIABILITY.

C

Response Action Status

THE FOLLOWING ARE THE RESPONSE ACTIONS THAT HAVE BEEN TAKEN TO REDUCE THE THREATS TO NEARBY RESIDENTS AND THE SURROUNDING ENVIRONMENT. THE ACTIONS ARE LISTED IN ORDER OF THEIR POTENTIAL LIABILITY.

D

Site Facts:

THE FOLLOWING ARE THE FACTS THAT HAVE BEEN IDENTIFIED AT THE SITE. THE FACTS ARE LISTED IN ORDER OF THEIR POTENTIAL LIABILITY.

E

Environmental Progress



THE FOLLOWING ARE THE ACTIONS THAT HAVE BEEN TAKEN TO REDUCE THE THREATS TO NEARBY RESIDENTS AND THE SURROUNDING ENVIRONMENT. THE ACTIONS ARE LISTED IN ORDER OF THEIR POTENTIAL LIABILITY.

Site Repository

THE FOLLOWING ARE THE ACTIONS THAT HAVE BEEN TAKEN TO REDUCE THE THREATS TO NEARBY RESIDENTS AND THE SURROUNDING ENVIRONMENT. THE ACTIONS ARE LISTED IN ORDER OF THEIR POTENTIAL LIABILITY.

SITE REPOSITORY

Lists the location of the primary site repository. The site repository may include community relations plans, public meeting announcements and minutes, fact sheets, press releases, and other site-related documents.

A**SITE DESCRIPTION**

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

B**THREATS AND CONTAMINANTS**

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

C**CLEANUP APPROACH**

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

D**RESPONSE ACTION STATUS**

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

E**SITE FACTS**

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

A SUMMARY OF THE STATE PROGRAM

Superfund Activities in Wisconsin

The State of Wisconsin is located within EPA Region 5, Which includes the six midwestern States. The State covers 56,153 square miles. According to the 1990 Census, Wisconsin experienced a 4 percent increase in population between 1980 and 1990, and is ranked sixteenth in U.S. population with approximately 4,892,000 residents.



The State responds to contamination using two authorities. The most prevalent is the Hazardous Substance Spill law enacted in 1978, which requires persons who possess hazardous substances to restore the environment to the extent prescribed and to minimize harmful effects. The other authority is the Environmental Repair Statue, enacted in 1984 as part of the

Groundwater bill, creates the Environmental Fund, requires a State site ranking system applicable to any site responded to under the Repair Statue. It authorizes the State to take emergency and long-term cleanup actions, recover the cost of cleanup from polluters and obtain polluter cooperation in site cleanups. This statue requires the State to prove that the polluter is liable for contamination, for either *****. If a polluter is liable, the State has the authority to compel the polluter to conduct or pay for cleanup activities regardless of actual contribution to the hazardous conditions. Additionally, under the Abandoned Containers Statute of 1987, the State has the authority to use the Environmental Fund to remove and dispose of abandoned vessels that contain hazardous substances. This statute provide that a polluter is liable for damages posed by the hazards, regardless of fault or amount of contributing contamination. In practice, the State attempts to encourage polluter participation first: if a polluter fails to respond, the State determines whether a State funded action or to initiating a Federal Superfund action at the site is appropriate. In addition to the 10-50 percent contribution from the State required by the Federal Superfund program, the State funding amy be used for emergency response and removal actions, site investigations, study and design activities, long-term cleanup actions, and operation and maintenance activities. The State strongly encourages public participation, requiring public notice, a 30-day comment period, and public hearings at each stage of the cleanup process. The State has recently **mulgated state administrative ruler know as NR700, (effective May 1, 1995). That addresses cleanup progress for all sites being addressed under the Spill and Repair Statues. Remedy selection and soil standard are still being worked on and will be included in the NR700 series when complete. Currently 39 sites in the State of Wisconsin have been listed as final on the NPL.

THE DEPARTMENT OF NATURAL RESOURCES
implements the Superfund Program in the State of Wisconsin

WISCONSIN

Facts about the 40 NPL sites in Wisconsin:

Immediate Actions (such as removing hazardous substances or restricting site access) were performed at 21 sites.

Twenty-one sites endanger sensitive environments.

Twenty-eight sites are located near residential areas.

The Potentially Responsible Party Pays...

In the State of Wisconsin, Potentially responsible parties are paying for conducting cleanup activities at 29 NPL sites.

For Further Information on NPL sites and Hazardous Waste Programs in the State of Wisconsin Please Contact:

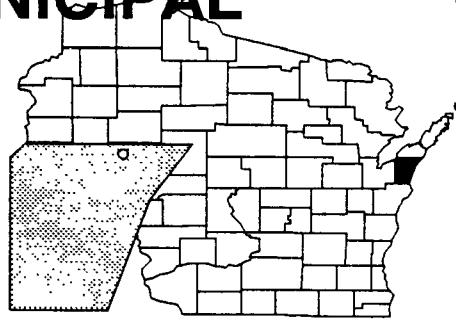
* EPA Region 5 Office of Public Affairs	For information concerning community involvement	(312) 353-2072
* National Response Center	To report a hazardous waste emergency	(800) 424-8802
* Department of Natural Resources: Emergency and Remedial Response Program	For information about the State's responsibility in the Superfund Program	(608) 267-7562
* EPA Region 5 Waste Management Division	For information about the Regional Superfund Program	(312) 353-9419
* EPA Superfund Hotline	For information about the Federal Superfund Program	(800) 424-9068

ALGOMA MUNICIPAL LANDFILL WISCONSIN

EPA ID# WID980610380

EPA REGION 5

Kewaunee County
Algoma



Site Description

The 13-acre Algoma Municipal Landfill was leased from Dumman Realty and was operated from 1969 to 1983 by the City of Algoma. In 1970, the landfill received a license from the State to accept municipal refuse. While most of the accepted waste was municipal refuse, paint wastes, lacquers, thinners, and asbestos wastes also were disposed of at the landfill. When the landfill closed in 1983, the City covered it with clay and topsoil. The landfill, which has no liner, is underlain by a sand and gravel aquifer and another deeper aquifer. The two aquifers are hydraulically connected so that water can move between them. The City of Algoma's wells draw on the deeper aquifer, and rural wells draw from both aquifers. The site is within 3 miles of Lake Michigan. Krohn's Lake, which is used for recreation, is less than 1 mile away. Approximately 5,000 people depend on groundwater within 3 miles of the site for drinking water. Approximately 180 people live within 1 mile of the site, all using private water supplies. The nearest residence is 1,100 feet away from the site boundary.

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

NPL LISTING HISTORY

Proposed Date: 06/10/86

Final Date: 07/21/87

Threats and Contaminants



In 1984, the EPA detected volatile organic chemicals (VOCs) and heavy metals in on-site monitoring wells. An investigation completed in 1990 confirmed that the groundwater continues to be contaminated with VOCs. Exposure to contaminated groundwater through direct contact or accidental ingestion may be a potential health threat. The potential exists for wetlands, located south of the site, to be affected by the contaminated groundwater that surfaces in the area. However, no release of hazardous materials into the wetlands has occurred.

Cleanup Approach

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

Response Action Status



Entire Site: In 1990, the potentially responsible parties, under EPA monitoring, completed an investigation of the site. The final report indicated that the landfill cap does not meet State safety standards and that the groundwater is contaminated. Based on the results of the investigation, a new cover that meets State standards was selected as the final remedy in a 1990 Record of Decision. Groundwater and gas monitoring will be continued and gas control measures will be applied, along with institutional controls to restrict the use of contaminated groundwater. The potentially responsible parties began the design of these remedies in late 1991. Construction began in early 1993 and was finished in December of that year.

Site Facts: Several companies and the City of Algoma, identified as parties potentially responsible for site contamination, signed an Administrative Order on Consent in 1988 with the EPA and the Wisconsin Department of Natural Resources (WDNR) to perform site investigations. In 1991, the City of Algoma and several companies signed a Consent Decree with EPA and WDNR to design and construct the remedy.

Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate emergency actions were required at the Algoma Municipal Landfill site while the design of the cleanup activities is ongoing.

Site Repository



Algoma Public Library, 406 Fremont Street, Algoma, WI 54201
Algoma City Hall, 416 Fremont Street, Algoma, WI 54201

BETTER BRITE PLATING CO. CHROME AND ZINC SHOPS

WISCONSIN

EPA ID# WIT560010118



EPA REGION 5

Brown County
DePere

Other Names:
Better Brite Zinc
Better Brite Chrome

Site Description

The 2-acre Better Brite Plating Co. Chrome and Zinc Shops site consists of two sections that are divided by a residential area. Metal plating operations were conducted at the chrome shop from 1963 until 1986 and at the zinc shop from 1970 until 1989. While the plants were in operation, the Wisconsin Department of Natural Resources (WDNR) documented numerous violations and spills at the facility, including a spill of 2,200 gallons of chromium-contaminated plating solutions and rinse water in 1979. In order to remedy the situation, Better Brite installed groundwater monitoring wells and constructed a collection system that allowed water to be pumped to a central surface water holding pond. Better Brite also constructed a slope to prevent surface water from running off the site. In addition, Better Brite excavated soil from neighboring properties and deposited it on the site. During the course of operations at the site, over 20,000 gallons of plating solution are thought to have leaked from in-ground plating tanks. A study of soil in 1979 identified chromium-contaminated soil in the areas to the west and south of the main building. Although Better Brite was ordered by the WDNR to clean up the contamination in 1980, no action was taken. Several subsequent inspections, conducted by the WDNR from 1980 to 1987, revealed extensive on-site chromium contamination as well as contamination in the building's air handling system. Shortly after operations ceased, the WDNR received a complaint that yellow water was running from the chrome shop into the city sewer. Subsequently, the WDNR investigated this incident and found chromium in the runoff and soil at a neighboring residence. To prevent exposure to contaminated soil, the WDNR razed the main building, partially fenced the site, covered the site with clay, placed topsoil on the clay cover, and seeded it. Also in 1988, the EPA allocated emergency funds to the WDNR to design a treatment system, which is now operational, for water being discharged from the site to the DePere Wastewater Treatment Plant. The owners abandoned the site in 1989. Due to bankruptcy proceedings, ownership of the land at both facilities is in question. Approximately 46,000 people obtain drinking water from municipal wells within 3 miles of the site. DePere Municipal Well #2 is 500 feet downgradient of the zinc shop.

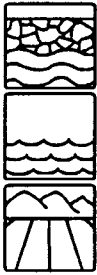
Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY

Proposed Date: 10/26/89

Final Date: 08/30/90

Threats and Contaminants



Groundwater, surface water, and soil are contaminated with heavy metals including chromium and zinc, as well as cyanide and various volatile organic compounds (VOCs). Area residents may be exposed to contaminants through direct contact with or accidental ingestion of these contaminated materials. Contaminants have migrated into groundwater. A sandstone aquifer serves as the municipal water supply for the City of DePere, and the villages of Allouez and Ashwaubenon.

Cleanup Approach

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

Response Action Status



Initial Actions: The EPA removed over 83 tons of contaminated soil, 9,270 gallons of chromic acid, 3,600 gallons of toxic liquids, 550 gallons of cyanide solution, 150 pounds of cyanide sludge, and 500 gallons of flammable liquids from the chrome shop facility in 1986. In 1990, the EPA removed hazardous materials from the zinc shop in the same manner. These wastes subsequently were treated and disposed of in an EPA-approved landfill. The water treatment system was completed in 1990 and is now fully operational. Surface removal of drums, vats, and tanks remaining on site was completed in 1991.



Entire Site: A State-lead investigation into the nature and extent of remaining contamination at the site began in 1990. Based on the results of this investigation, final site cleanup remedies will be selected.



Interim Action: In 1991, the EPA selected an interim action to address contamination at the chrome and zinc shops. The selected interim remedies include continuing operation of the 1990 groundwater treatment system, few repairing the zinc shop and constructing a fence around it, and improving the collection system at the chrome shop by extending trenches and regrading the soil to prevent flooding. This effort was stopped momentarily to remove the source of contamination from the zinc and chrome shops. Concrete slabs and contaminated soil beneath the slabs are currently being removed from both shops. Once this is completed, it will be determined if the collection system still needs to be improved.

Environmental Progress



Removing substantial quantities of hazardous waste and securing the site have reduced the potential for explosion and exposure to hazardous materials at the Better Brite Co. Plating Chrome and Zinc Shops site while final interim cleanup activities are taking place.

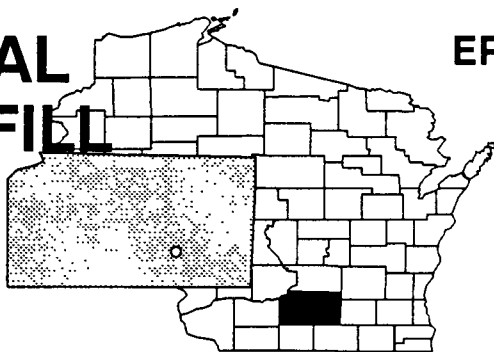
Site Repository



Brown County Public Library, DePere Branch, 380 Main Avenue, DePere, WI 54115

CITY DISPOSAL CORP. LANDFILL WISCONSIN

EPA ID# WID980610646



EPA REGION 5

Dane County
Town of Dunn

Site Description

The City Disposal Corp. Landfill site covers approximately 24 acres of a 38-acre landfill. The unlined landfill was filled with municipal and industrial waste from 1966 to 1977. Waste was deposited into on-site cells. Six of these cells were used for disposing of municipal wastes from surrounding communities in Dane County that were served by the landfill. The other six cells were not used for disposal during the lifetime of the landfill. From 1966 until 1975, industrial wastes and organic chemicals were disposed of in a small pit on the eastern side of the landfill. During the early 1970s, industrial wastes such as solvents, organics, and oily wastes were deposited. The site was licensed by the State as a solid waste landfill.

Reportedly, 55-gallon drums and bulk liquid waste from area industries were deposited on the site and were covered periodically. Hazardous waste disposal at the landfill was phased out in 1975, and the site was closed in 1977. The site was subsequently capped. The state permit expired in 1977 and was not reissued. There are an estimated 5,500 people living within 3 miles of the site. Approximately 160 people residing within a mile of the site depend on private wells. The surrounding area is mainly agricultural. A residential subdivision is located southwest of the site, and a wooded area lies to the south. Badfish Creek, which receives runoff from the site, is located 300 feet east of the landfill. The City of Madison discharges treated wastewater into Badfish Creek.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants

On-site groundwater and soil are contaminated with volatile organic compounds (VOCs). Potential health threats to people include drinking contaminated groundwater, accidental ingestion of contaminated soil, inhalation of contaminated dusts and air particles, and direct contact with contaminated groundwater and soils. Grass Lake, a habitat for sandhill cranes and other wildlife, is located about 700 feet northeast of the site and could be subject to pollution from the site runoff.



Cleanup Approach

The site is being addressed in two long-term remedial phases focusing on controlling the source on contamination and the cleanup of the groundwater. EPA issued a Record of Decision in September 1992, which called for placing of a cap over the site, and groundwater control measures.

Response Action Status



Source Control: Under EPA monitoring, Waste Management of Wisconsin conducted an investigation into the nature and extent of the contamination present at the landfill, including a geophysical survey and soil sampling. The investigation defined the contaminants of concern and recommended alternatives for the final cleanup. The investigation was completed in 1992.



Groundwater: Also under EPA monitoring, Waste Management of Wisconsin conducted an investigation into the nature and extent of groundwater contamination at the site. The study included providing an inventory of existing monitoring wells, sampling and analyzing groundwater, and analyzing data on groundwater movement. The investigation defined the contaminants of concern and recommended alternatives for the final cleanup. The investigation was completed in 1992.

Site Facts: In 1987, an Administrative Order on Consent was entered into between the EPA and Waste Management of Wisconsin, a party potentially responsible for the site contamination, requiring the company to investigate the site contamination. In 1993, EPA issued a unilateral administrative order calling for the conduct of remedial design/remedial action efforts necessary to implement the Record of Decision.

Environmental Progress



After listing the City Disposal Corp. Landfill site on the NPL, the EPA conducted preliminary studies and determined that the site does not pose an imminent threat to the surrounding communities or the environment while the investigations leading to the selection of final cleanup solutions for the site are taking place. As of 1994, pre-design and remedial design efforts are on-going.

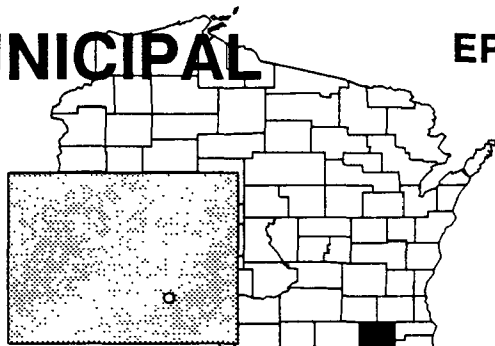
Site Repository



Dunn Town Hall, 4156 County Trunk Highway B, McFarland, WI 53558

DEHAVAN MUNICIPAL WELL #4 WISCONSIN

EPA ID# WID980820062



EPA REGION 5

Walworth County
Delavan

Site Description

The Delavan Municipal Well #4 site is defined as the contaminated aquifer used by the Delavan Well #4. Well #4 was closed in 1982 due to contamination by volatile organic compounds (VOCs), but is used occasionally when another city well must be taken out of service. When used, the water from Well #4 is blended with other city water to reduce any concentrations of contaminants to levels below what is considered a health risk. The blending occurs at a common point past the inlet for Well #4; this requires Well #3 to pump at the same time. When Well #3 was shut down, Well #4 was used continuously. During that time, unblended water from Well #4 may have been delivered to nearby residents, businesses, and a school. There are more than 3,000 people living within 1 mile of the site. The population of Delavan relies on municipal water, and no private wells have been identified in the area. Surrounding the site are schools, homes, businesses, and an industrial facility. The distance from the well to the closest residence is 500 feet.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Air may be contaminated with VOCs from the use of extraction wells or the sprayer-aerator system used at a nearby industry. Well #4 and the area soils are contaminated with VOCs, including trichloroethylene (TCE). When Well #4 is used to supply water to the municipality, there is the possibility of a health threat to people through drinking it, coming in direct contact with it, or inhaling contaminated vapors in the water. When Well #4 is used, highly contaminated water from the industrial site across the street may be pulled toward the well, potentially increasing VOC concentrations.

Cleanup Approach

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

Response Action Status



Initial Actions: A potentially responsible party for the site contamination has taken steps to contain contaminated groundwater near the site through the installation of a groundwater extraction system and a soil venting system. The groundwater extraction and soil venting systems were operating and were expanded in 1992. The systems have been operational for years, but recent investigative work has shown that expansion was necessary.



Entire Site: The State, under EPA monitoring, began an investigation into the nature and extent of the groundwater contamination at the site in 1990. The investigation defined the contaminants of concern through the installation of monitoring wells and the sampling of soil, and recommended alternatives for the final cleanup remedy. The investigation was completed in 1993.

Environmental Progress



EPA determined, after initial evaluations of the Delavan Municipal Well #4 site, that no other immediate actions are required to protect the surrounding community or the environment while the groundwater containment system is being installed and the investigations leading to the selection of a final remedy for site contamination are taking place.

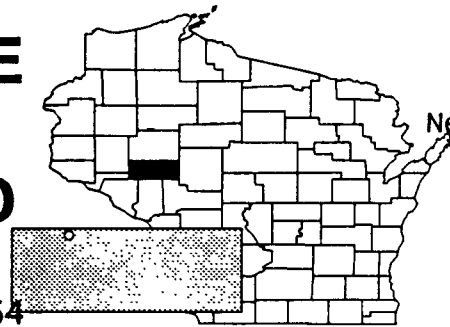
Site Repository



Aram Public Library, 404 East Walworth Avenue, Delavan, WI 53115

EAU CLAIRE MUNICIPAL WELL FIELD WISCONSIN

EPA ID# WID980820054



EPA REGION 5

Eau Claire County

Near the Eau Claire Co. Airport, east of
the Chippewa River

Site Description

The Eau Claire Municipal Well Field (ECMWF) site covers 500 acres and consists of 14 wells that provide drinking water for the residents of Eau Claire County. In 1981, the Wisconsin Department of Natural Resources (WDNR) sampled groundwater from the ECMWF as part of an EPA-sponsored groundwater survey of 20 Wisconsin cities. The WDNR's sampling detected volatile organic compounds (VOCs), primarily in the north well field. However, the level of VOCs delivered to homes remained below the State groundwater quality standards. In 1982, the City began monitoring VOC levels in residential wells near the municipal field. In 1983, the City found that VOC levels in one of these wells exceeded the State's groundwater quality standards and recommended that its owners use bottled water instead of groundwater. In 1984, five of the municipal wells in the north field also were found to be contaminated with VOCs. The contamination at the site initially was characterized as two separate plumes. However, studies conducted at the nearby National Presto Industries site, which also is on the NPL, have shown that the two plumes are actually a single continuous plume that originates at the National Presto site. The plume is approximately 2 1/2 miles in length and extends from the National Presto site to, and including, the ECMWF. The municipal well field serves approximately 57,600 residents of the county. Also, an unknown number of residents in the county pump their own groundwater from privately owned wells.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Groundwater at the site was contaminated with VOCs including trichlorethane, dichlorethene, and tetrachloroethene. People could have been exposed to VOCs if they drank or came in direct contact with contaminated groundwater or if they had inhaled hazardous substances that the water released into the air. The EPA does not believe that the nearby Chippewa River was affected by the contamination, as pumping of the municipal wells prevents the groundwater from discharging into the river.

Cleanup Approach

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

Response Action Status



Immediate Actions: In 1984, the EPA conducted a focused study of the nature and extent of VOC contamination in drinking water. The results of this study recommended air stripping as the recommended method to address contamination at the site. In mid-1987, the EPA completed construction of an air-stripping unit to remove VOCs from the contaminated groundwater in the north field. This method treats the groundwater, discharges it to a municipal water treatment plant, and then to a distribution system.



Entire Site: The EPA completed an additional study in 1988 to study the nature and extent of contamination at the entire site and to identify and analyze various alternatives that best addressed remaining contamination. The EPA selected the following final remedies for the site: withdrawing water from the existing municipal wells in the north well field and removing VOCs from the water using the existing air stripper; installing extraction wells in the north well field and discharging water extracted by those wells directly to the Chippewa River without treatment; installing extraction wells in Plume #2 and discharging water extracted by those wells directly to the Chippewa River without treatment; connecting to the city water system or providing individual treatment units to those residences within the contaminated areas; and monitoring groundwater quality during the action to determine when the groundwater has been cleaned up to meet State and Federal guidelines. The EPA is continuing to treat the municipal groundwater supply with the air stripper and has provided municipal water to users of private well water. In 1990, the EPA finished construction of 22 hookups to the municipal water supply for those residences which cannot use groundwater, as a result of Plume #1 contamination. With the exception of the installation of extraction wells in plume #2, all construction at the ECMWF site has been completed. Based on the investigations at the National Presto site, the extraction well installation will be addressed as part of the cleanup process for National Presto Industries. In 1993, EPA reached a settlement with National Presto Industries whereby the company reimbursed the Agency for approximately 95 percent of EPA costs associated with the investigation and cleanup of the ECMWF site. This settlement was under the terms of a consent decree between EPA, U.S. Department of Justice and National Presto Industries.

Site Facts: In September 1992, the EPA released an Interim Closeout Report for the ECMWF.

Environmental Progress



The air stripping unit in use at the ECMWF site is successfully controlling the level of VOCs in the groundwater being fed to the municipal wells. This action, in addition to connecting affected residences to the municipal water supply, is protecting the surrounding population and environment. The remaining cleanup actions are being evaluated as part of the investigation at the National Presto NPL site.

Site Repository

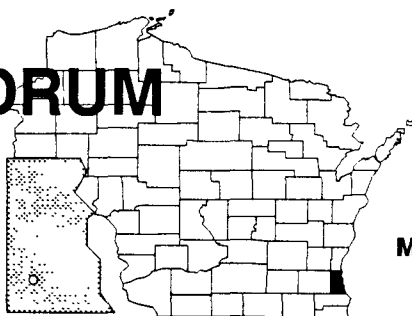


L.E. Phillips Memorial Library, 400 Eau Claire Street, Eau Claire, WI 54701
Eau Claire City Hall, 203 S. Farwell Street, Eau Claire, WI 54701

FADROWSKI DRUM DISPOSAL

WISCONSIN

EPA ID# WID980901227



EPA REGION 5

Milwaukee County
Franklin

Other Names:
Menard's Drum Disposal Site

Site Description

The Fadrowski Drum Disposal site covers approximately 20 acres on South 27th Street, on the eastern edge of Franklin, along its border with Oak Creek. From 1970 until 1981, Edward Fadrowski, of Ed's Masonry and Trucking, operated a landfill at the site to dispose of demolition and construction wastes. A former employee alleged in 1981 that the property was used for the disposal of hazardous waste and that several hundred drums and lubricant sludges were buried there. Early in 1983, Menard, Inc. purchased part of the site and began to construct a store to sell home building materials. Excavation of the property turned up buried drums. Analysis of drum contents by the State showed the drums contained volatile organic compounds (VOCs), lead, chromium, and small amounts of arsenic. One sample of oily sludge contained DDT, a pesticide no longer in use. The EPA and the Wisconsin Department of Natural Resources (WDNR) believe that a number of responsible parties generated the hazardous substances that were disposed of at the site. Construction work completed in 1993 revealed approximately 180 drums. Environmental concerns at the site include contamination of the soil and shallow groundwater. Nearby residents use a deeper aquifer, which is separated from the contaminated aquifer by about 80 feet of low permeability clay, as their source of drinking water. No private well contamination has been found. About 18,000 people depend on wells that are within 3 miles of the site as sources of drinking water. The nearest residence is about 200 feet from the site. Residential and commercial buildings exist in the vicinity of the site. There are several schools and parks within a 2-mile radius of the site.

Site Responsibility:

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

NPL LISTING HISTORY

Proposed Date: 10/15/84

Final Date: 06/10/86

Threats and Contaminants



Groundwater samples collected from one of the monitoring wells on site indicated low levels of mercury and benzene. Chromium, barium, and cyanide were found in shallow groundwater at levels exceeding State limits. Sediment samples collected from on-site creeks and ditches contained PAHs and inorganic compounds. Subsurface soil samples collected from the site are contaminated with low level VOCs, especially toluene. One surface water sample taken from the on-site creek contained low levels of cyanide and VOCs. People could be exposed to hazardous substances through drinking contaminated groundwater or surface water or by accidentally ingesting contaminated soil. Exposure to buried drums could pose a threat if the site is developed. The drums also could rupture, causing further contamination of the environment.

Approximately 9 acres of wetlands border the on-site pond on the west. In the past, run-off from the site flowed towards the wetlands; however, once remedial action is complete site run-off will be redirected to an on-site drainage system. The site was occasionally used for recreational activities. Local residents in the area around the site, especially children, use the pond located at the eastern edge of the site for swimming and could thus be exposed to site contamination.

Cleanup Approach

The site is being addressed via a single long-term remedial action which includes installing a cap in compliance with WDNR Administrative Code regulations.

Response Action Status



Entire Site: Acme Printing Company, under the supervision of the EPA and the WDNR, began a study in 1987 to determine the nature and extent of contamination at the site. The study was completed in early 1991. The final cleanup remedy was selected in 1991 and involves removing drums, testing for soil contamination levels, capping the waste disposal area, fencing the site, and controlling future site use through deed restrictions. Design specifications for the final cleanup remedy were completed and cleanup was initiated. Cleanup activities completed at the site in 1993 include: installation of erosion control measures, storm sewer installation, removal of on-site pond, pond backfilling, and excavation and securing of approximately 180 drums. Cleanup will be completed in 1994.

Environmental Progress



After listing the Fadrowski Drum site on the NPL, the EPA performed preliminary evaluations and determined that the site does not pose an immediate threat to the surrounding community and the environment. The second phase of construction activities is in progress. Cleanup will be completed in 1994.

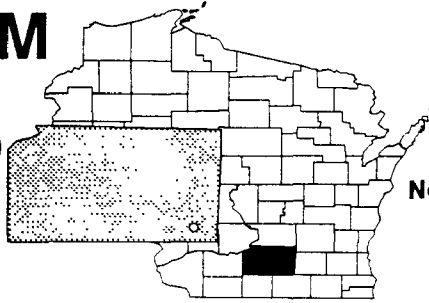
Site Repository



Franklin Public Library, 9229 West Loomis Road, Franklin, WI 53132

HAGEN FARM WISCONSIN

EPA ID# WID980610059



EPA REGION 5

Dane County
Dunkirk

Other Names:

No Name Property at 2318 County A

Site Description

The Hagen Farm site covers 10 acres and is located approximately a mile east of Stoughton. The site operated as a sand and gravel pit from the 1950s until the mid-1960s, when it served as a disposal site for municipal waste from the City of Stoughton and industrial waste from Uniroyal Plastics Corporation, as well as other sources. The site consists of one main disposal area and two smaller areas located in a former gravel quarry. During its operation as a waste disposal site, solvents and other chemicals and chunks of solid vinyl were disposed of at the site. Waste disposal activities ceased at the site about 1966. The disposal area on the site was covered with a layer of soil, and the property subsequently was sold in 1977 to Orrin Hagen, a sheep farmer. In 1980, the Wisconsin Department of Natural Resources (WDNR) received a complaint from a local resident alleging that the site had been used for the disposal of drummed wastes during the 1960s. The WDNR investigated the site, then in use as a sheep pasture, and observed that solid vinyl was protruding through the soil. The WDNR sampled nearby residential wells in 1980 through 1982, at which time volatile organic compounds (VOCs) were found. Uniroyal conducted a study to evaluate groundwater quality at and near the site in 1982 and detected VOCs in the groundwater. In 1987, Orrin Hagen transferred ownership of the site to Waste Management, Inc. (WMI), the current owner. The population of the City of Stoughton is estimated to be 7,500. The land surrounding the site is semi-rural and industrial. Approximately 350 people reside within a mile of the site. The majority of Stoughton's residents draw water from a municipal well water supply system, and an estimated 940 people depend on private wells located within 3 miles of the site for their drinking water supply. The City of Stoughton's municipal wells are located about 2 miles to the west, and eight private wells are located within 1,200 feet 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: 09/16/85

Final Date: 07/22/87

Threats and Contaminants



The ground water is contaminated with VOCs such as tetrahydrofuran (THF), benzene, ethylbenzene, toluene and xylenes (BTEX). The highest concentrations of VOCs in ground water are located near the former disposal areas. On-property soils/wastes are also contaminated with VOCs.

Currently, ingestion of contaminated ground water or breathing VOCs while showering with contaminated ground water pose a potential health threat. Contaminated soils/wastes have been capped; therefore, direct exposure to contaminants is not currently a potential health threat.

Cleanup Approach

The site is being addressed in three stages: interim actions and two long-term remedial phases focusing on cleanup of the entire site.

Response Action Status



Interim Actions: The neighboring land was purchased by the current site owner, WMI, the houses on that land have been demolished, and a protruding drum has been removed. The site has been fenced, although an access road to an active gravel pit runs directly past the main dump site.



Source Control: Two smaller areas of waste were exhumed, consolidated into the main disposal area and the main disposal area was capped. Construction of the cap was completed in May 1992.

Construction of a In-Situ Vapor Extraction (ISVE) system through the cap was completed in January 1994. The ISVE system is currently operational and functional. The ISVE was designed to treat contaminants in the soils/wastes by drawing out VOCs and drawing in oxygen which will promote biodegradation of the wastes. The cap and ISVE system are anticipated to reduce the potential of contaminant loading to the ground water from the contaminated soils/wastes. The ISVE system may also help reduce VOC concentrations in ground water directly under the landfill cap. The ISVE system is anticipated to run until at least late spring.



Groundwater: The potentially responsible party is designing a ground water extraction and treatment system. Ground water close to the disposal area is anticipated to be treated by an above-ground biological treatment system. More diluted ground-water contamination away from the property is anticipated to be treated by one the following five treatment technologies: biological treatment, cascade aeration, air-stripping, granular activated carbon (GAC) adsorption or U/V oxidation. The most appropriate treatment technology will be selected by the EPA, in consultation with the WDNR, after completion of bench-scale treatability studies in late 1994. One option under consideration is to combine the relatively concentrated and diluted contaminated ground water and run it through one system. The design is

anticipated to be completed by the end of summer 1995.

Site Facts: The Wisconsin Department of Justice filed an enforcement action against Uniroyal, Inc. and Waste Management of Wisconsin in 1983, directing them to perform an investigation and to clean up the site. This action was dismissed in 1987 when Uniroyal and Waste Management agreed to undertake the site study. The remedial design/remedial action (RD/RA) is currently being conducted by Waste Management of Wisconsin. Waste Management of Wisconsin settled claims against Uniroyal in December 1992 and currently is the only participating Potentially Responsible Parties.

Environmental Progress



By fencing in a major area of the Hagen Farm site, removing a contaminated drum, demolishing buildings, and capping the contaminated soils/wastes. The potential for exposure to site contamination has been reduced while work is ongoing, leading to the remedy for ground water contamination.

Site Repository

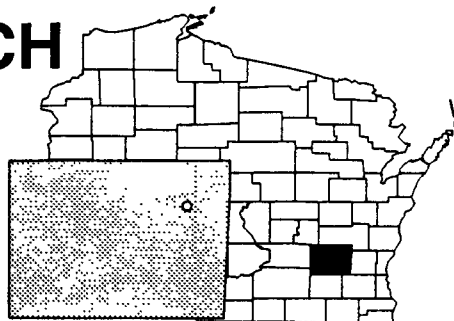


Stoughton Public Library, 304 South Fourth Street, Stoughton, WI 53589

Dunkirk Town Hall, County Trunk Highway N. Stoughton, WI 53589

HECHIMOVICH SANITARY LANDFILL WISCONSIN

EPA ID# WID052906088



EPA REGION 5

Dodge County
Williamstown, approximately
2 miles from Mayville

Site Description

The Hechimovich Sanitary Landfill site is situated on 24 acres and is located in Williamstown, a rural area located approximately 2 miles south of Mayville. The site is a former commercial landfill that operated from 1959 to 1986. The owner of the site claims that he placed hazardous waste in unlined pits from 1972 to 1980. Some of the types of wastes disposed of in these pits include paint sludges, cutting oils, and spent organic solvents. The Wisconsin Department of Natural Resources (WDNR) ordered the pits closed in 1980. The EPA detected volatile organic compounds (VOCs) in two wells downgradient of the site in 1984. The owner of the site violated the terms of the landfill's permit by depositing solid waste in areas beyond those previously approved by the WDNR. The towns nearest to the site are Mayville, with a population of 4,330, and Horicon, with 3,585 residents. Approximately 5,000 people obtain their drinking water from private wells located within 3 miles of the site.

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

NPL LISTING HISTORY

Proposed Date: 06/24/88

Final Date: 03/31/89

Threats and Contaminants

Groundwater in several wells downgradient of the site has been shown to be contaminated with VOCs. On-site soil is contaminated with VOCs as well. Direct contact with or ingestion of contaminated groundwater or soil may pose health threats. Local surface waters may be used by residents for recreational activities. If site-related contaminants should migrate into the surface water, residents could be exposed to them when coming into direct contact with these bodies of water. A portion of the Hechimovich Landfill site is a wetland, which could be at risk from site runoff.

Cleanup Approach

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

Response Action Status



Entire Site: The project has been divided into two operable units. the first operable unit addresses source control. Through the enforcement of an existing state court order, the potentially responsible parties (PRPs) installed a landfill cap and a gas collection system. A 1994 Record of Decision indicated that because of this action, no further source control interim action was necessary. The PRPs are currently conducting the second operable unit which addresses the groundwater contamination at the site. This study is expected to be completed in 1994.

Environmental Progress



After adding the Hechimovich Landfill site to the NPL, the EPA determined, after initial evaluations, that the site does not pose an immediate threat to the surrounding communities or the environment while the investigations leading to the selection of a final cleanup remedy are taking place.

The installation of the landfill cover and gas collection system has eliminated exposure to the waste and contaminated soil. It has also minimized the potential release of contaminants from the landfill waste to the groundwater.

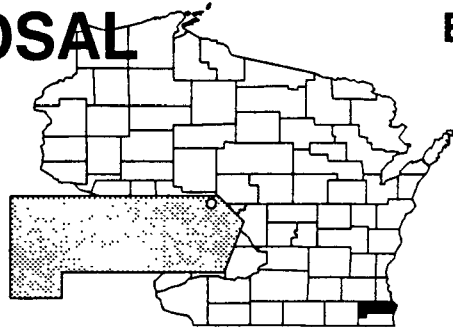
Site Repository



Administrative Record Repository: Mayville Public Library, 111 N. Main Street
Mayville, WI

HUNTS DISPOSAL LANDFILL WISCONSIN

EPA ID# WID980511919



EPA REGION 5

Racine County
Caledonia

Site Description

The Hunts Disposal Landfill site consists of 35 acres of an 84-acre parcel and is located 8 miles north of Racine in Caledonia. This site is an old sand and gravel pit that was first licensed to operate as a dump by the Racine County Board of Adjustments in 1959. From 1959 to 1974, the various owners of the site accepted both industrial and municipal wastes. In 1970, the State granted a license to the owners of the landfill that allowed them to accept non-combustible trash, garbage, and wooden material. In 1974, the site was purchased by Waste Management, Inc. of Wisconsin from Caledonia Corporation Landfill, which had acquired it in 1972, when it was operating as Hunts Disposal Landfill. During the late 1960s and early 1970s, area residents reported seeing people driving cars to the site and dumping garbage into the ditch near the railroad tracks. Residents also complained that the site was poorly covered. In 1964, four 10,000-gallon tanks containing residual arsenic acid sludge were buried at the site. According to files kept by Racine County, these tanks were cleaned before they were buried. During 1973 to 1974, the State noted several operational problems such as seepage of wastes into the groundwater, lack of proper cover, and windblown paper. The Hunts Disposal site was closed in 1974. An inspection conducted by the State in 1975 noted deficiencies in final cover and topsoil depths, severe gully erosion on some slopes, and the absence of vegetative cover over portions of the landfill. The site was purchased by the Boundary Corporation in 1975. In 1976, the County purchased the site as a part of the Root River Parkway System, a regional park concept. The Hunts Disposal site is located in a semi-rural area that is developing into a residential community. There are several residences located in the immediate vicinity of the site and within the boundaries of Caledonia. Approximately 1,500 people live within a 1-mile radius of the site. All of the residences in the vicinity of the site rely on private wells for their water supply. A subdivision of approximately 1,000 people is located 1 to 1 1/2 miles west of the landfill site across the Root River. These residents obtain their water from a private sanitation district. Residents of Oak Creek, located 1/4 mile north of the site, rely on municipal wells that draw water from depths of approximately 1,800 feet. Marshlands border the site on the west.

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

NPL LISTING HISTORY

Proposed Date: 06/10/86

Final Date: 07/21/87

Threats and Contaminants



On-site soils and groundwater are contaminated with volatile organic compounds (VOCs) and heavy metals. Groundwater and surface water on the eastern side of the site are contaminated with heavy metals including arsenic and lead. Soils from the landfill area are contaminated with heavy metals and VOCs. On-site workers and trespassers could be exposed to site-related contaminants by accidentally ingesting or coming into direct contact with contaminated groundwater, surface water, soils, or sediment. Hydrogeologic conditions favor the migration of groundwater off site. If groundwater contamination migrates into private and municipal wells, area residents could be exposed to contaminants in the groundwater. The Root River, which is used by area residents for recreational purposes, borders the site, and runoff from the contaminated soils and surface water could pollute these waters and sediments.

Cleanup Approach

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

Response Action Status



Initial Actions: Waste Management and Racine County made an attempt to abandon the site in 1982 and conducted several activities including repairing erosion damage, sealing leachate seeps, and revegetating the site. The EPA conducted an inspection of the site in 1984 and took several samples of soils, surface waters, groundwater, and sediments.



Entire Site: Based on investigations conducted by the EPA and the State, the EPA selected a remedy in 1990 to clean up the site by consolidating the contaminated soil and sediment onto the landfill and constructing a cap over it. In 1992 a group of Potentially Responsible Parties signed a Consent Decree with EPA to prepare the Remedial Design and perform the Remedial Action. A landfill gas collection and treatment system will be installed to control vapors at the site. A partial-slurry wall will be constructed around the perimeter of the landfill to contain groundwater. The groundwater will be pumped and treated on-site prior to discharge. In addition, the site will be fenced to prevent access and exposure to contaminants. The design of the remedy is scheduled to be completed in 1995.

Environmental Progress



Investigations by the EPA and the State have determined that the Hunts Disposal Landfill does not pose an imminent threat to the public. The EPA has selected the remedy for site cleanup, and Potentially Responsible Parties have agreed to implement the required action. Pre-design studies have been completed and the design is scheduled to be completed in 1995.

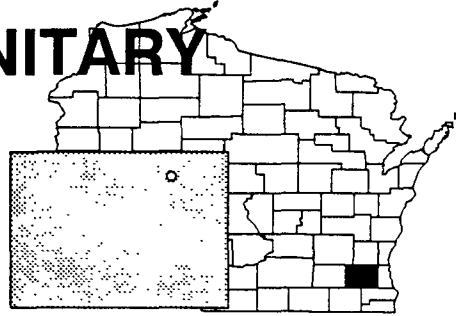
Site Repository



Caledonia Town Hall, 6922 Nicholson Road, Caledonia, WI 53108

LAUER I SANITARY LANDFILL WISCONSIN

EPA ID# WID058735994



EPA REGION 5

Waukesha County
Menomonee Falls

Other Names:
Waste Management Lauer I
United Waste Systems
Boundary Road Landfill

Site Description

From the mid-1950s to 1972, the 46-acre Lauer I Sanitary Landfill accepted a variety of municipal and industrial wastes. The site was closed and covered in 1973. It took several years for the owners to vegetate the cover and properly abandon the site. In 1973 and 1974, State inspectors revealed holes in the berm around the site that allowed leachate from a collection pond to escape into a ditch that drains into the Menomonee River. In 1981, the owner installed an underground wall of clay materials between the landfill and the pond to stem the flow of leachate. Presently, leachate accumulating behind the cut-off wall is sent to a municipal wastewater treatment plant. Approximately 23,500 individuals reside within a 3-mile radius of the site.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



Soils and leachate are contaminated with benzene, cyanide, toluene, and zinc. People may be exposed to contaminants through accidental ingestion or by coming in direct contact with contaminated soil or leachate. Although the landfill has been covered and seeded for recreational use, leachate continues to threaten groundwater and nearby surface waters. Also, contaminants may enter the food chain by way of locally raised livestock and vegetables.

Cleanup Approach

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

Response Action Status



Entire Site: An investigation to determine the nature and extent of contamination and to identify alternative long-term remedial methods began in 1991, under State guidance. Based on the results of the investigation, a remedy will be selected for site cleanup. It was completed under state guidance in August 1993.

Site Facts: Negotiations between the State and one potentially responsible party, Waste Management of Wisconsin, began in 1988. An agreement between the State and Waste Management was signed in August 1990, requiring the company to take responsibility for investigating site contamination and designing and constructing the State-selected remedy.

Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions are required at the Lauer I Sanitary Landfill site while an investigation into final cleanup remedies is taking place.

Site Repository

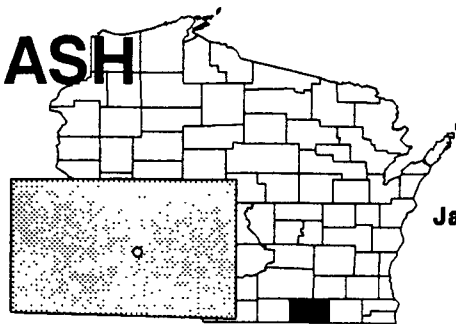


Maude Shunk Library, W156 N8486 Pilgrim Road, Menomonee Falls, WI 53051

JANESVILLE ASH BEDS

WISCONSIN

EPA ID# WID000712950



EPA REGION 5

Rock County
Janesville

Other Names:
Janesville Disposal Facilities

Site Description

The Janesville Ash Beds site covers about 5 acres of a 65-acre parcel of land on the northern side of Janesville. There are four Janesville Disposal Facilities (JDF) on these 65 acres: the Janesville Ash Beds (JAB), the Old Dump Site (1963 site), the Janesville Old Landfill (1978 site), and the New Landfill (1985 site). The JAB and the Janesville Old Landfill are listed on the NPL and are being cleaned up under Superfund. The New Landfill and the Old dump are being handled under the Resource Conservation Recovery Act (RCRA). The City of Janesville is the owner of the properties and has operated land disposal activities at the site since the 1950s. The JAB, which began operating in 1974, consisted of five separate ash beds. The facility accepted an assortment of industrial liquids and sludges. Approximately 1 1/2 to 3 million gallons of industrial sludges were accepted annually. Fly ash and the resultant dried sludges were sent to the Old Landfill for disposal from 1974 to 1978 and then to the New Landfill. From 1974 to 1983, the ash beds were unlined, with only a plastic liner beneath a small portion of the bed to serve as a leachate sampling system. In the fall of 1982, beds #3, #4, and #5, were excavated, contaminated ash and soils were removed, and the beds were reconstructed with clay liners and equipped with leachate collection systems. Industrial wastes still were being accepted at beds #1 and #2 while the other three beds were being reconstructed. Bed #1 was closed, and the sludge was removed in 1983. Wastes were not accepted at bed #2 after 1983, and the sludge was removed in 1984. In 1985, the remaining three beds (#3, #4, and #5) were cleaned and closed, and the entire JAB area was covered with clay and graded. Over 1,000 tons of ash from the JAB had been disposed of in the New Landfill. For further information on the Old Landfill, see the separate listing under Janesville Old Landfill. Janesville has a population of approximately 51,000 people. Residential areas are located within a few hundred feet of the Janesville Disposal Facilities. A number of parks are within 2 miles of the sites and two schools are within 1 mile. The Rock River is about 1,500 feet west of the sites.

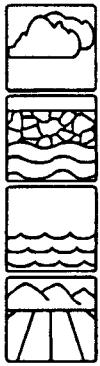
Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



In most instances, all four facilities have contributed to contamination in the air, groundwater, sediments, soil, and surface water. Methane gas has been detected in the air at the disposal facility. Groundwater is contaminated with volatile organic compounds (VOCs) including benzene, acetone, tetrachlorethene, trichloroethene. Surface water in the Rock River contains low levels of VOCs. Small amounts of contaminants are found in the Rock River and the on-site pond. These, along with air pose a very low health risk. Soil and groundwater may pose a threat if individuals accidentally ingest or contact contaminants.

Cleanup Approach

The site is being addressed in a single long-term remedial phase focusing on cleanup of the five components of the JDF: JAB, 1985 site, 1978 site, 1963 site and JDF groundwater.

Response Action Status



Entire Site: The potentially responsible parties, under EPA monitoring, completed a study of the four Janesville Disposal facilities. The EPA broke the site down into five cleanup components: New Landfill, Old Landfill, Old Dump, JAB, and JDF groundwater. All being handled jointly by RCRA/CERCLA Consent Decree. In 1989, the EPA selected the remedies for the JAB and the related JDF groundwater contamination. The remedy involves restricting access and land use, continuing cap maintenance, complying with applicable Federal requirements, removing and properly disposing of the remaining ash pile, restricting land and groundwater use between the facility and the Rock River, installing groundwater extraction wells to protect the Rock River from migrating contaminants, and developing a groundwater treatment system using an air stripper to remove VOCs. Consent Decree for the Remedial Design/Remedial Action was entered with the District Court January 1992.

Site Facts: In 1986, the EPA, the State, and the parties potentially responsible for site contamination reached an agreement requiring the parties to conduct an investigation of the contamination at the Janesville facilities. The Old Landfill and JAB sites are being addressed under Superfund, as both are listed on the NPL while the other two sites in addition to the JAB site, are being addressed under the authority of RCRA regulations. These two RCRA sites were included in the NPL investigation because of their close proximity to the Old Landfill and JAB areas. The JAB and the 1985 site are RCRA interim status sites.

Environmental Progress



The complexity of the separate areas at the Janesville Disposal Facility sites required extensive study into the extent of contamination prior to the selection of final cleanup remedies. These investigations have resulted in the selection of final remedies for all the areas of contamination, with actual cleanup activities scheduled to begin soon.

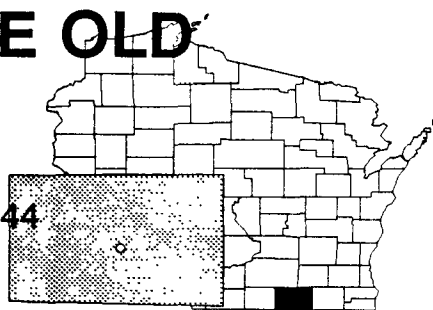
Site Repository



Janesville Public Library, 316 South Main Street, Janesville, WI 53545

JANESVILLE OLD LANDFILL WISCONSIN

EPA ID# WID980614044



EPA REGION 5

Rock County
Janesville

Other Names:
Janesville Disposal Facilities

Site Description

The 18-acre Janesville Old Landfill site is on a 65-acre parcel of land that contains four different sites: the Janesville Ash Beds (JAB), the Old Dump Site (1963 site), the Janesville Old Landfill (1978 site), and the New Landfill (1985 site). All four sites have been combined and called the Janesville Disposal Facility (JDF) and are being addressed jointly under CERCLA and RCRA. The new landfill and the JAB are RCRA interim status sites. While the JAB and Old Landfill are on the NPL. The City of Janesville is the owner of the properties and has operated land disposal activities at the sites since the 1950s. The Janesville Old Landfill site is an abandoned sand and gravel pit that was used as a municipal sanitary landfill beginning in 1963. Industrial drummed wastes including solvents, used oils, paints, paint thinners, and other industrial wastes were accepted drummed for disposal. The site also received the sludge-ash mixture when the ash beds at the Janesville Ash Beds were cleaned out. The landfill does not have any bottom or side liners, but was covered with clay-type material when it reached capacity in 1978. The landfill does not have a leachate collection system or clay liner. The City of Janesville has a population of approximately 51,000 people. Residential areas are located within a few hundred feet of the Janesville disposal facilities. The Rock River is 1,500 feet west of the site.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants

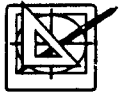


Methane gas from the decomposing material stored in the landfill has been detected in the air at the site. Groundwater is contaminated with volatile organic compounds (VOCs) and heavy metals including arsenic, barium, lead, iron, and manganese. Soils are contaminated with various VOCs and heavy metals including manganese and cadmium. Surface water in the Rock River contains low levels of VOCs. Contaminated groundwater is not considered a health threat because no private drinking water wells are contaminated or appear to be threatened. Small amounts of contaminants in the Rock River and the on-site pond and the air pose a very low health risk. Contaminated soil and groundwater may pose a health threat through accidental ingestion or direct contact.

Cleanup Approach

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

Response Action Status



Old Landfill Site: The parties potentially responsible for site contamination, under EPA monitoring, completed a study of all of the Janesville Disposal Sites. The EPA selected a remedy for the Janesville Old Landfill and the related groundwater contamination in 1989 which includes: access and land use restrictions; installation of a landfill gas extraction and flaring system that may later be converted into an energy converting system; construction of a landfill cap, tying the Old Landfill cap into the cap being constructed for the New Landfill; continued monitoring of the groundwater and air; deed and groundwater-use restrictions between the facility and the Rock River; installation of groundwater extraction wells to protect the Rock River from migrating contaminants; and development of a groundwater treatment system using an air stripper to remove VOCs. The potentially responsible parties began designing the remedies in mid-1991. The cleanup is expected to begin in 1994.

Site Facts: In 1986, the EPA, the State, and the parties potentially responsible for site contamination reached an agreement, whereby the parties conducted an investigation of the nature and extent of contamination at the Janesville Disposal sites. (For further information on the JAB, Old Dump Site, and New Landfill, see the separate listing under Janesville Ash Beds.)

Environmental Progress



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

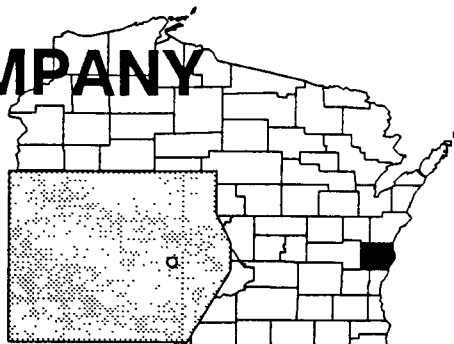
Site Repository



Janesville Public Library, 316 South Main Street, Janesville, WI 53545

KOHLER COMPANY LANDFILL WISCONSIN

EPA ID# WID006073225



EPA REGION 5

Sheboygan County
Kohler

Site Description

The Kohler Company Landfill is an 82-acre site, 40 acres of which have been used as a landfill since the 1950s, primarily for the disposal of foundry and manufacturing wastes produced by Kohler's manufacturing facilities. Between 1950 and the mid-1970s, at least four pits were constructed for the disposal of hydraulic oils, solvents, paint wastes, enamel powder, lint from brass polishing, and plating sludges. Oils commonly were used for dust control. Since 1980, all Federally regulated wastes have been shipped off site for disposal. In 1977 and 1981, sludges from the two wastewater settling lagoons were buried at the site. The landfill was not originally scheduled to close until 2035; however, the State landfill license is being modified, and the closure of the landfill will occur much sooner. Approximately 1,600 people live within 3 miles of the landfill. The nearest residence is 1/4 mile away. The Sheboygan River is within 300 feet of the site.

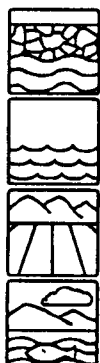
Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Groundwater is contaminated with various volatile organic compounds (VOCs), heavy metals, phenols, and polycyclic aromatic hydrocarbons (PAHs). Runoff water and sediments contain heavy metals, phenols, and PAHs. Leachate samples contained VOCs and heavy metals. Waste samples from the landfill contain VOCs, phenols, PAHs, polychlorinated biphenyls (PCBs), and heavy metals. People who come in direct contact with or accidentally ingest contaminated groundwater or leachate may be at risk. Workers or trespassers who ingest, inhale, or come in direct contact with contaminants contained in the landfill wastes could be at risk. Groundwater and leachate discharge into the Sheboygan River, some of the contaminants may accumulate in the river sediments and may have detrimental

effects on aquatic life that come in contact with the sediment.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on source control and management of groundwater.

Response Action Status



Source Control: In 1985, the Kohler Company, under monitoring by the EPA and the Wisconsin Department of Natural Resources (WDNR), began investigating the contamination at the site. The EPA selected a remedy for the site in early 1992. The remedy calls for closing the currently operating landfill, installing a multi-layer soil cap over the landfill, issuing zoning and access restrictions, and collecting contaminated leachate on site via a perimeter drain. Design of the selected remedy began in mid-1992 and is expected to be completed in 1995.



Groundwater Management: The Kohler Company is conducting a feasibility study of potential ground water remedies. A proposed plan recommending a remedy is planned to be released for public comment in early 1995, with a final decision to follow. WDNR is the "lead agency" for this phase of the project.

Site Facts: In 1985, the EPA, the State, and the Kohler Company signed an Administrative Order on Consent, whereby the company agreed to study the type and extent of contamination at the site. The company also agreed to assess potential and actual risks to public health and the environment and to evaluate potential cleanup alternatives.

Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Kohler Company Landfill site while cleanup design actions and further investigations continue.

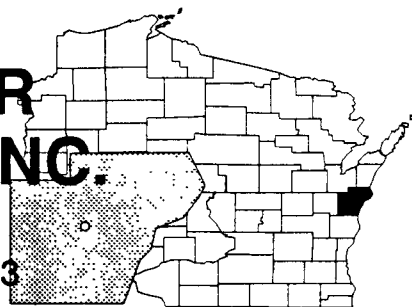
Site Repository



Kohler Public Library, 230 School Street, Kohler, WI 53044

LEMBERGER LANDFILL, INC. WISCONSIN

EPA ID# WID980901243



EPA REGION 5

Manitowoc County
Whitelaw

Other Names:
Lemberger Fly Ash Landfill

Site Description

The 21-acre Lemberger Landfill, Inc. site is located approximately 1/4 mile from Lemberger Transport and Recycling, also an NPL site. The two sites operated under the same license from 1970 through 1976. The Township of Franklin used the site, an old gravel pit, as an open dump from 1940 to 1970. Lemberger Landfill, Inc. operated the site as a sanitary landfill under a license from the Wisconsin Department of Natural Resources (WDNR) from 1969 to 1976. From 1976 to 1977, Wettencamp and Brunner Excavating Company transported fly ash from Manitowoc Public Utilities to the Lemberger facility. An estimated 1,750 to 2,500 cubic yards of fly ash were disposed of monthly. Past WDNR inspections showed that Lemberger used fly ash and bottom ash as cover, instead of burying them along with the refuse. In 1980, following complaints by local residents that landfill leachate had seeped onto their properties, the WDNR investigated and tried to get the site owners to address contamination problems at the landfill. Lemberger Landfill, Inc. filed for bankruptcy in 1983. In 1985, volatile organic compound (VOC) contamination was found in seven residential wells at levels that exceeded standards. New, deeper wells were provided to residents with contaminated wells. Sampling from the new wells in 1985 showed no contamination. Part of the site is bordered by a marsh. Wetland vegetation occupies low-lying areas of the site. The nearby Branch River is used for swimming, fishing, and canoeing, and the area commonly is used for hunting. Approximately 2,700 people live within 3 miles of the site. The residents depend on public and private wells within 3 miles of the site as a source of drinking water.

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

NPL LISTING HISTORY

Proposed Date: 09/18/85

Final Date: 06/10/86

Threats and Contaminants

The groundwater is contaminated with VOCs including vinyl chloride and methylene chloride. Surface water is contaminated with phenols, VOCs, and heavy metals including cadmium and lead. Surface soils contain VOCs, semi-volatile organic compounds, pesticides, polychlorinated biphenyls (PCBs), and inorganic compounds. Subsurface soils contain VOCs and inorganics. Potential health threats exist if contaminated groundwater or soil is ingested or directly contacted. Contaminants have entered the food chain; therefore, ingesting milk or livestock and fish taken from the river also may be a potential health threat. Exposure to contaminants may occur when coming into direct contact with polluted surface water. The site is neither fenced nor posted with signs to restrict access.



Cleanup Approach

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

Response Action Status



Initial Actions: New wells were drilled to provide water to residences with contaminated wells.



Entire Site: In 1984, the EPA sampled monitoring wells and leachate at the site. The results showed elevated levels of several contaminants. In 1987, the EPA began an investigation to determine the extent and nature of contamination and to identify cleanup alternatives. A draft investigation report was completed in 1990. In 1991, the EPA selected the final remedies to clean-up the site which include groundwater extraction, treatment, and discharge into the Branch River. Also recommended are groundwater monitoring, temporary groundwater use restrictions, and control of landfill waste by capping the landfill and containing contaminated groundwater inside a slurry wall. Design activities are to be completed in 1994.

Site Facts: In 1982, Lemberger signed a Consent Order with the WDNR that required identification of the source of leachate controls, followed by groundwater monitoring. Drilling and testing were done until the owner filed for bankruptcy. In 1992, EPA and WDNR entered into a Consent Decree (CD) with a group of PRPs for the implementation of the selected cleanup action.

Environmental Progress



By providing an alternate water supply to affected residents, potential for exposure to contaminants in the groundwater has been reduced while final cleanup remedies are being planned at the Lemberger Landfill, Inc. site.

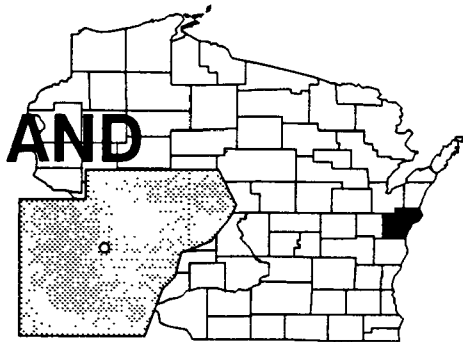
Site Repository



Manitowoc Public Library, 808 Hamilton Street, Manitowoc, WI 54220
Whitelaw Village Hall, 232 E. Menasha Avenue, Whitelaw, WI
Franklin Town Chairman Steve Brooks Home/Office, Route 1, Box 293 A,
Whitelaw, WI

LEMBERGER TRANSPORT AND RECYCLING WISCONSIN

EPA ID# WID056247208



EPA REGION 5

Manitowoc County
Whitelaw

Site Description

The 16-acre Lemberger Transport and Recycling site operated as an unlined landfill from 1970 to 1976. From 800,000 to 1 million gallons of tars and paint sludges were buried at the site. Heavy metals and phenols have leached into groundwater. Large quantities of aluminum dust also are buried on the site, as are polychlorinated biphenyls (PCBs) from the cleanup of a spill. In 1976, the site was closed and covered with 1 foot of clay. Between 1976 and 1980, additional clay covering was added. The owner of the farms adjoining the landfill has plowed portions of the site, exposing bulk wastes and drums. In 1985, the Wisconsin Department of Natural Resources (WDNR) sampled residential wells in the area and found contamination. This site is located less than 1/4 mile away from the Lemberger Landfill, also a National Priorities List site. Lemberger Transport and Recycling and the Lemberger Landfill, Inc. operated under the same license. The Branch River, 1/2 mile west of the site, is used for swimming, fishing, and canoeing. Hunting occurs in the area, and site access is unrestricted. Approximately 2,700 individuals live within 3 miles of the site and obtain their potable water supply from a shallow aquifer.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



The groundwater underlying the site has been shown to be contaminated with various volatile organic compounds (VOCs); phenols; and heavy metals including lead, chromium, and aluminum. Soil contamination includes VOCs, semi-volatile organic compounds, pesticides, PCBs, and inorganic compounds. Potential health threats include ingesting or coming in direct contact with contaminated groundwater or soil.

Cleanup Approach

This site is being addressed in two long-term remedial phases focusing on cleanup of the groundwater and source control.

Response Action Status



Groundwater: In 1987, the EPA began an investigation to determine the extent and nature of contamination of the groundwater and to identify alternative long-term cleanup methods. A draft investigation report was completed in late 1990. A final groundwater remedy was selected in 1991, which includes groundwater extraction, treatment, and discharge into the Branch River, groundwater monitoring, and temporary groundwater use restrictions.



Source Control: In 1991, the EPA began additional studies designed to add to the data uncovered by the site investigation begun in 1987. The study will define the nature and extent of cleanup required to establish control over the source of contamination. In 1993, EPA and a group of PRPs entered into a AOC for removal of drums, soil vapor extraction of contaminated soils, and final landfill capping. AOC activities are expected to be completed 1995.

Site Facts: In 1982, the State signed a Consent Order with Lemberger Transport and Recycling, requiring it to report on site conditions, including an analysis of the extent of groundwater contamination and recommendations for cleanup actions. However, the site owners filed for bankruptcy in 1982.

Environmental Progress



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

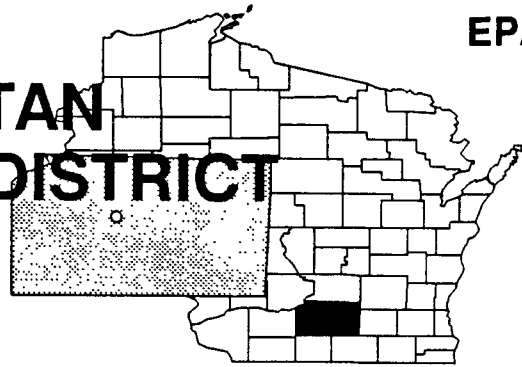
Site Repository



Manitowoc Public Library, 808 Hamilton Street, Manitowoc, WI 54220
Whitelaw Village Hall, 232 E. Menasha Ave, Whitelaw, WI
Franklin Town Chairman Steve Brooks, Home/Office, Route 1, Box 293 A,
Whitelaw, WI

MADISON METROPOLITAN SEWERAGE DISTRICT LAGOONS WISCONSIN

EPA ID# WID078934403



EPA REGION 5

Dane County
Madison

Site Description

The 135-acre Madison Metropolitan Sewerage District Lagoons site is owned by the City of Madison, which has been depositing sludge from its Nine Springs Sewer Treatment Plant in the two lagoons since 1942. In 1970, a section of the new lagoon's dike broke, releasing 85,000 gallons of liquid from the lagoons into an old effluent channel that runs north to Nine Springs Creek, which empties into the Yahara River. A large number of fish were killed. A second dike broke in 1973. The lagoons are in a low-lying area bordered by wetlands. Approximately 94,000 people reside near the site and obtain drinking water from wells within 3 miles of the site. A mobile home park of about 250 units is located 1,000 feet from the site.

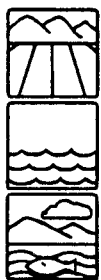
Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 06/24/88

Final Date: 02/21/90

Threats and Contaminants



The sludge in the lagoons is contaminated with polychlorinated biphenyls (PCBs) and is a potential health concern to people living near the site. People working on the cropland where sludge is applied may be exposed to PCBs. Hunting occurs in the wetlands adjacent to the site. The lagoons are feeding areas for many species of waterfowl. In addition, surface water in the old effluent channel is tainted from the PCB-contaminated sludge.

Cleanup Approach

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

Response Action Status



Entire Site: The potentially responsible parties are conducting an investigation of the site to determine the nature and extent of contamination. Alternative cleanup remedies will be evaluated, based on the findings of this investigation.

Environmental Progress



The EPA performed preliminary investigations and determined that no immediate actions were required at the Madison Metropolitan Sewerage District Lagoons site while investigations are being conducted and cleanup activities are being planned.

Site Repository

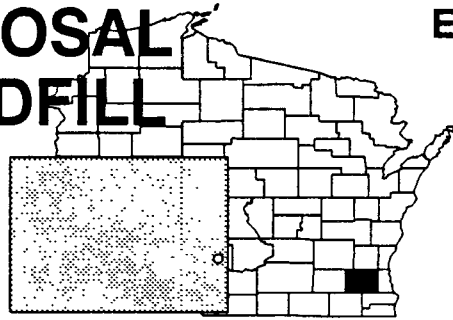


Madison Public Library Local Documents Section, 201 West Mifflin Street, Madison WI 59703

Madison Metropolitan Sewage District, 1610 Moorland Road, Madison, WI 53713

MASTER DISPOSAL SERVICE LANDFILL WISCONSIN

EPA ID# WID980820070



EPA REGION 5

Waukesha County
City of Brookfield

Site Description

Master Disposal Service, Inc. operated a 26-acre landfill on the western edge of Brookfield. The site was licensed by the State to receive wastes in 1977. Until early in 1982, the company filled a portion of a wetland near the banks of the Fox River with over 668,000 cubic yards of industrial wastes including solvents, paints, adhesives, oils, and foundry wastes. A drainage ditch adjacent to the site runs into the Fox River. In addition to its landfill operations, the facility also burned disposed material. No wastes have been accepted at the site since it closed in 1982 for landfill disposal, but some wastes were accepted for burning after 1982. State sampling established that groundwater near the site is contaminated with heavy metals and volatile organic compounds (VOCs). Approximately 10,000 people reside within 3 miles of the site and depend on 10 municipal wells in the same area for their potable water.

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

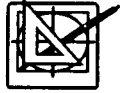


The groundwater is contaminated with VOCs including benzene, toluene, and xylenes and chlorinated solvents. The groundwater also is contaminated with heavy metals such as iron, manganese, and barium. Accidental ingestion, direct contact with, and inhalation of contaminated airborne dusts may be a potential health threat. The site lies on a raised plateau in the middle of a wetland, which could be contaminated from site runoff.

Cleanup Approach

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

Response Action Status



Entire Site: Some of the potentially responsible parties completed an investigation in 1990 to determine the nature and extent of contamination and to identify alternatives for site cleanup. Based on the results of the investigation, the EPA selected a cleanup strategy which includes the following: capping the site with a soil cover; installing appropriate gas venting; installing a groundwater pump and treat system; and determining the extent of wetlands and planning for their protection or restoration during site cleanup. The design of these technologies began in mid-1991. Cleanup activities are expected to begin in 1994, when all design activities are expected to be completed. After a two-year period of implementation, the EPA will re-evaluate this strategy to determine whether further enhancement is necessary to fully meet cleanup goals.

Site Facts: In 1977, the State signed an agreement requiring Master Disposal Service to develop and implement a proper site abandonment plan.

Environmental Progress



The EPA performed preliminary evaluations at the Master Disposal Service Landfill site and determined that the site does not pose an immediate threat to the surrounding population or the environment while design of the cleanup remedies is underway.

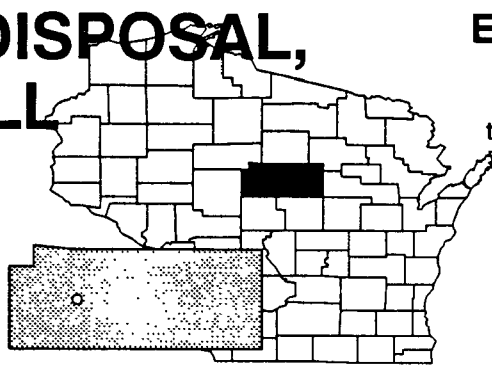
Site Repository



Brookfield Public Library, 1900 Calhoun Road, Brookfield, WI 53005

MID-STATE DISPOSAL, INC. LANDFILL WISCONSIN

EPA ID# WID980823082



EPA REGION 5

Marathon County
4 miles northeast of
the Village of Stratford

Site Description

The Mid-State Disposal, Inc. Landfill (MSD) site is a 160-acre parcel of land located four miles northeast of Stratford and 18 miles southwest of Wausau. The site includes the 35-acre "Old Mound" landfill, the 5-acre "Interim Expansion" area, and a 3-acre sludge lagoon. All three are covered with soil and vegetation. MSD conducted landfilling operations from 1970 to 1979, receiving municipal, industrial, and commercial wastes, as well as construction and demolition debris. These wastes included paper mill sludges, asbestos dust, solvents, pesticides, paint sludges, and metals. Over the years, the covers of the Old Mound landfill, the Interim Expansion area, and the sludge lagoon have been improperly maintained. Numerous environmental problems and permit violations were noted by the Wisconsin Department of Natural Resources (WDNR) during a site inspection in 1974, while evaluating whether MSD was in compliance with the newly enacted State Solid Waste Disposal Regulations. In early 1977, the WDNR approved a plan to close the Old Mound landfill. Later that year, MSD was fined for improper closure of the landfill, and another order was issued. A leachate containment pond on the western edge of the site ruptured, releasing 150,000 to 200,000 gallons of leachate into Rock Creek during the late 1970s. In 1979, a lawsuit was filed by the State, ceasing operations at the site. The Weyerhaeuser Company, a generator of waste disposed at the facility, agreed to properly close the site in 1979. The pond leachate was removed, and the three waste disposal areas were covered. Leachate collection systems were installed in late 1979 for both the sludge lagoon and the interim expansion area; only the leachate collected from the latter has been removed and treated off site. The site is surrounded by abandoned railroad tracks; two sludge disposal lagoons owned by Weyerhaeuser, Inc. on the northeast; and private property on the east. Ten residences are located within a 1-mile radius of the site. Most land near the site is devoted to dairy and cash crop farming, though a few small businesses are scattered throughout the area. Surface water from west of the Old Mound landfill drains to an unnamed tributary of Rock Creek, and surface water from east of the Old Mound landfill drains to an unnamed tributary of the Big Eau Pleine River.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Several heavy metals and volatile organic compounds (VOCs) including benzene, vinyl chloride, and methylene chloride have been detected in the groundwater. Leachate samples contain metals and VOCs above drinking water standards. On-site samples taken from the sludge lagoon, Interim Expansion area, and the Old Mound landfill are contaminated with heavy metals. Samples containing VOCs were collected from the tributary to Rock Creek. Soil samples from an area along the western edge of the site are contaminated with heavy metals, phthalates (plastic by-products), and dieldrin (a pesticide). One off-site sample taken near a tributary to Rock Creek contained iron and copper at concentrations exceeding Federal water quality standards designed to protect aquatic animals. Direct contact with and accidental ingestion of contaminated soil, surface water, groundwater, leachate, or sediments may pose risks to public health and aquatic organisms. Nearby wildlife potentially is threatened by site contaminants.

Cleanup Approach

The site is being addressed in two long-term remedial phases focusing on cleanup of the entire site and supplying an alternative water supply.

Response Action Status

Entire Site: In 1988, the EPA selected the following cleanup actions: imposing deed restrictions on the site to ensure that future site owners do not cause new releases from the site by building on or excavating soil from the site (restrictions also would be placed on large off-site groundwater withdrawals in the site vicinity to prevent the use of contaminated groundwater); constructing a fence around the site to prevent potential trespassing; reconstructing on-site roads to accommodate truck traffic during the cleanup; groundwater, surface water, and residential well monitoring to evaluate the effectiveness of the cleanup actions; landfill gas monitoring; off-site groundwater monitoring; providing an alternate water supply for nearby residences; improving surface water drainage; leachate and ponded water collection and off-site treatment; institutional controls to prevent well installation on site; solidifying sludge to reduce water content in it and capping the sludge lagoon to reduce rainfall seepage into the sludge lagoon; and, constructing new soil covers and a landfill gas collection system at the Old Mound and Interim Expansion area. Under EPA monitoring, the parties potentially responsible for the site contamination began designing the cleanup activities in 1989. A pre-design study has been conducted to characterize the cap and the lagoon, as well as to install additional monitoring wells to determine whether the lower aquifer is contaminated. The design of these cleanup activities was completed in March 1993. Construction will begin in April 1994.



Alternative Water Supply: In 1989, the potentially responsible parties began evaluating the feasibility and necessity of a AWS and is planned to be completed in late 1994.

Site Facts: In 1980, a group of citizens filed suit against Mid-State Disposal, Inc., Weyerhaeuser, and the WDNR for past improper handling and disposal of hazardous waste at the site.

Environmental Progress



The EPA performed preliminary evaluations and determined that the site does not pose an imminent threat to the nearby community or the environment while the designs of final cleanup remedies are being completed at the Mid-State Disposal, Inc. Landfill site. The landfills have been capped and a leachate collection system and gas extraction system installed thus greatly reducing contamination releases from these areas.

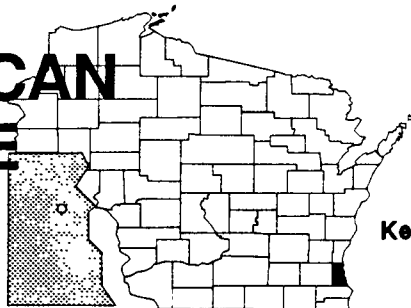
Site Repository



Marathon County Library, 300 Larch Street, Stratford, WI 54484

**MOSS-AMERICAN
(KERR-MCGEE
OIL CO.)
WISCONSIN**

EPA ID# WID039052626



EPA REGION 5

Milwaukee County
Milwaukee

Other Names:
Kerr McGee Chem. Corp. Forest
Prod. Div.

Site Description

The 88-acre Moss-American site is located in northwestern Milwaukee. Operations at the site began in 1921, when the Moss Tie Company began to treat railroad ties with creosote, a wood preservative. The site operated from 1921 until 1976, when it was closed by Kerr-McGee, a former owner. During the facility's period of operation, liquid wastes were discharged to settling ponds that drained into the Little Menomonee River. Between 1963 and 1965, the Kerr-McGee Chemical Corporation purchased both companies and formed the Moss-American Company. Contamination at the site was first reported during the late 1960s. In 1971, several people received creosote-related chemical burns from wading in the Little Menomonee River. The EPA filed an injunction against Kerr-McGee in 1974, ordering the cleanup of contaminated river sediments. Following the site's closing in 1976, the EPA continued to investigate the site and to gather evidence for its suit. The case, however, was dismissed in 1978 because of erroneous field data. Milwaukee County dropped its pending lawsuit against Kerr-McGee that same year in exchange for 65 acres of the site. Kerr-McGee sold the remaining 23 acres of the site to the Chicago and Northwestern Railroad Company in 1980. The site is surrounded by a mixture of urban and rural uses. The railroad company now uses the parcel as an automobile loading and storage area. Total population within a 1-mile radius of the site is estimated at 9,500 people, all of whom depend on public wells for drinking water. The Little Menomonee River crosses the site area and is used for recreational purposes.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Groundwater samples have shown elevated levels of volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs). Free-standing creosote or an oil sheen was observed in three monitoring well samples; similar observations were noted in eight test pits. The primary contaminants detected in the river sediments are PAHs. Contaminants found in the soil in the processing area and vicinity, the treated wood storage area, and the northeast and southeast landfills include PAHs and BTX compounds, both components of creosote. PAHs were detected in a ditch that drains water from the site to the river. The Little Menomonee River has been negatively impacted by surface water runoff and sediments from the site. Potential health risks exist for individuals inhaling volatilized chemicals or ingesting or making direct contact with the contaminated sediments, soil, groundwater, or surface water.

Cleanup Approach

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

Response Action Status



Interim Actions: Contaminated sediment along 1,700 feet of the riverbed adjacent to the site was excavated and landfilled near the northeastern corner of the site. In 1973, the EPA financed the dredging of approximately 5,000 feet of the river. The plant facilities were demolished in 1978, and some oil-saturated soil was excavated and shipped to the Nuclear Engineering Landfill in Sheffield, Illinois.



Entire Site: The EPA completed an investigation in 1990 to identify the key physical features of the site, to locate on-site sources of creosote and other contaminants or hazardous wastes, and to determine the extent of contaminated soil, groundwater, and river sediment. Based on the results of this investigation, the EPA has selected remedies for cleanup, which include rerouting the Little Menomonee River, pumping and treating contaminated groundwater, and a combination of soil washing and bioremediation using bacterial organisms. Approximately 86,500 cubic yards of soil and sediment will be treated. The design of these technologies began in 1991 and is expected to be completed in 1995.

Environmental Progress



By removing contaminated sediment from the Little Menomonee River, the EPA has reduced the potential for exposure to hazardous materials in the river while the final cleanup remedies are being designed for the Moss-American site.

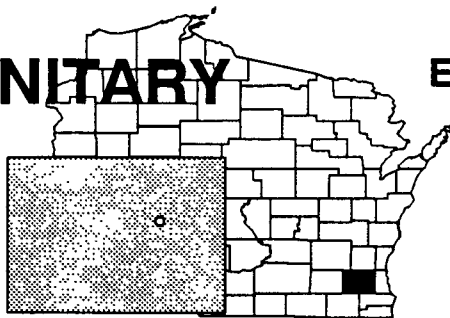
Site Repository



Mill Road Library, 6431 North 76th Street, Milwaukee, WI 53223

MUSKEGO SANITARY LANDFILL WISCONSIN

EPA ID# WID000713180



EPA REGION 5

Waukesha County
Muskego

Other Names:
Wauer Landfill

Site Description

The 56-acre Muskego Sanitary Landfill site is a former rendering plant with associated wastewater lagoons located northeast of the site. The site is defined by three areas known as the Old Fill, the Non Contiguous Fill and the Southeast Fill area. Prior to landfill operations, the site was run as a farm by the Alfred Wauer family. The Wauers, who also ran the off-site animal rendering plant and associated waste lagoons, used an inactive sand and gravel pit located on the farm for the disposal of animal carcasses and blood. The quarry pit evolved into an open dump, and in 1954, Mr. Wauer obtained a permit from the City of Muskego. The Old Fill was operated as a public dumping ground. During the 1960s, the Wauers allegedly accepted waste oils and paint products. Drums were emptied at or near the Old Fill and their contents were burned in open fires. In 1969, Acme Disposal, a subsidiary of Waste Management of Wisconsin, Inc. (WMWI), leased the property and continued operations at the dump. The Old Fill was licensed by the Wisconsin Department of Natural Resources (WDNR) in 1971 as a sanitary landfill. In 1975, the WDNR determined that the quality of groundwater was deteriorating in the vicinity of the site and subsequently ordered WMWI to cap and close the Old Fill. By 1976, the landfill had been renamed the Muskego Sanitary Landfill and was operated directly by WMWI. The Southeast fill was approved as a sanitary landfill by the WDNR in 1977 and remained active until it was filled to capacity and closed in 1981. Groundwater contamination was discovered in 1982 when the WDNR reviewed data in response to a request from WMWI for approval to do repair work on both fill areas. The Town of Waukesha, with a population of 51,000, is to the east of the landfill. The Fox River and associated wetlands are in the area.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Groundwater underlying the site has been shown to be contaminated with volatile organic compounds (VOCs) and heavy metals including lead and chromium from landfill wastes. Potential health risks exist for individuals who drink the contaminated groundwater. The wetlands also may be threatened.

Cleanup Approach

This site is being addressed in three stages: initial actions and two long-term remedial phases focusing on the removal of on-site waste and cleanup of the groundwater.

Response Action Status



Initial Actions: In 1982, the WDNR found elevated levels of contaminants in four residential wells. The four affected homes were purchased by WMWI. In 1985, the City of Muskego created a public water utility and constructed a system to serve area homes that may have been using contaminated wells. Approximately 19,820 pounds of liquid solvents and 1,735 tons of contaminated soil and old drums were removed from the site by the potentially responsible parties in the spring of 1990.



On-Site Waste: Under EPA monitoring, WMWI initiated an investigation in 1987 to determine the nature and extent of contamination at the site and to identify alternative cleanup methods. The EPA will evaluate the results of geophysical surveying, groundwater monitoring, test pit and soil sampling, and private well sampling, and expects to select the final cleanup strategy for site contamination by the end of 1994.



Groundwater: In 1987, the potentially responsible parties began a study to determine the nature and extent of groundwater contamination and to identify cleanup alternatives. The study was completed in 1992.

Site Facts: WMWI entered into an agreement to finance and conduct the investigation at the site. The Administrative Order was signed in 1987 by WMWI, the EPA, and the WDNR. In December 1992, a Unilateral Administrative Order (UAO) was issued to WMWI and over 40 other potentially responsible parties to implement the source control operable unit remedy. This work is expected to be completed at the end of 1994.

Environmental Progress



The purchase of the four homes with contaminated wells and construction of a public water supply have reduced the potential for exposure to contaminated groundwater while site studies are being conducted and cleanup activities are being planned at the Muskego Sanitary Landfill site.

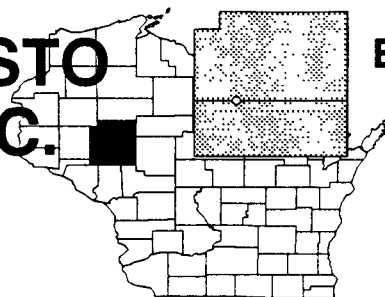
Site Repository



Muskego Public Library, South 8200 Racine Avenue, Muskego, WI 53150

NATIONAL PRESTO INDUSTRIES, INC. WISCONSIN

EPA ID# WID006196174



EPA REGION 5

Eau Claire County and
Chippewa County
Eau Claire

Site Description

The 325-acre National Presto Industries (NPI) site originally was owned by the U.S. Government and operated by government contractors as a small arms loading plant and manufacturing facility for radar tubes during the 1940s. NPI purchased the property in 1947 and has maintained sole ownership of the facility. From 1948 until 1954, NPI manufactured consumer goods at the site. During the latter part of this period, the facility also was used for defense-related activities, including manufacturing fuses for the Army and parts for military aircraft. Between 1954 and 1980, NPI has dedicated the plant to the production of artillery shell parts under contracts with the Army. Manufacturing operations at the facility ceased in 1980. The facility currently is inactive, and the Army has decided not to renew the annual standby contract with the National Defense Corporation which, in the past, has maintained the facility in a state of readiness for the Army. Wastewater generated at the facility originally was discharged to seven on-site seepage pits. By 1952, the seepage pits could no longer handle the high volume of water flow from the plant, and the wastewater was pumped to a former sand and gravel pit, which may have been used as a disposal area before 1948. From 1967 to 1969, wastewater lagoons were constructed to provide additional disposal capacity. Up to 2 1/2 million gallons of wastewater were discharged into the lagoons each day. Between 1966 and 1969, wastes containing volatile organic compounds (VOCs) were disposed of in one of the lagoons and in an area northeast of the plant known as the Melby Road site. In 1986, an additional disposal area was discovered on the eastern end of the NPI property line, following a complaint to the Wisconsin Department of Natural Resources (WDNR). Drums containing a variety of waste materials were found and later were removed and stored on an unused loading dock at the plant by NPI. The City of Eau Claire has a population of 53,400 people. Many nearby residences used private wells before permanent alternate drinking water supplies were provided in 1992. The Eau Claire Municipal Well Field, another site on the National Priorities List (NPL), is located within 3 miles of the site. Site investigations have shown the National Presto site to be the source of contamination at the Eau Claire site. A single continuous plume extends from waste disposal areas at the National Presto site to the Eau Claire site.

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

NPL LISTING HISTORY

Proposed Date: 10/15/84

Final Date: 06/10/86

Threats and Contaminants



Groundwater and soils are contaminated with various VOCs and heavy metals. Low levels of VOCs were detected in Lake Hallie, approximately 1 mile north of the site. Potential health threats include accidentally ingesting or coming in direct contact with contaminated soil or groundwater. Access to the main plant area is restricted by fencing and is checked by security guards throughout the day and night. Access to the remainder of the site is not restricted, although much of the site is surrounded by a fence.

Cleanup Approach

This site is being addressed through a removal effort and three operable units: removal of the wastes in lagoon #1 by pumping began in October 1993 and will be complete by mid 1994; the first operable unit (OU #1) consisted of extracting, treating and discharging groundwater to the Chippewa River; the second operable unit (OU #2) consisted of the construction of a permanent drinking water supply, and the third operable unit (OU #3) will consist of the cleanup of contamination sources. Construction of OU #1 was completed in February 1994 and operations began in March 1994. Construction of OU #2 was completed in early 1992 and the system began operations shortly thereafter. Selected remedies for OU #3 will be selected in early 1995 after completion of the Feasibility Study.

Response Action Status



Immediate Actions: In 1989, NPI began providing bottled water to Town of Hallie and City of Eau Claire residences and businesses whose wells were contaminated or threatened by contamination from the NPI site. Permanent alternate drinking water supplies became fully operational in early 1992, and the bottled water program has been discontinued. Fences were erected around the property boundaries of the Melby Road Disposal Site and the East Disposal Site in order to discourage access. Removal of the wastes in lagoon #1 by pumping began in October 1993 and will be completed by mid 1994. The wastes are being recycled as an alternative fuel.



Source Control and Groundwater: Under EPA monitoring, NPI initiated an investigation to determine the nature and extent of site contamination and to evaluate alternatives for source control and groundwater cleanup. In late 1991, the EPA selected a remedy for on-site contaminated groundwater that includes extracting, treating, and discharging groundwater to the Chippewa River. The EPA began construction of the extraction wells to contain the plume in mid-1992. Construction was completed in February 1994 and the remedy was operational in March 1994. Alternatives under consideration for source areas include soil vapor extraction, consolidation and capping, and recycling some of the waste materials as an alternative fuel.



Permanent Water Supply: In 1991, the City of Eau Claire and the Hallie Sanitary District began construction of permanent water supply hookups to serve the area affected by contaminated groundwater. These actions, funded by NPI, were completed in early 1992.

Site Facts: In 1986, NPI signed a Consent Order with the EPA and the State to conduct an investigation to determine the nature and extent of contamination at the site and to identify alternative cleanup remedies. A Unilateral Order was issued in 1989 for bottled water to be distributed to affected residents. An additional 1991 Unilateral Order was issued, requiring NPI to distribute drinking water supplies to affected residences and businesses near the site. A Unilateral Order was issued in mid-1992, requiring NPI to construct the remedy for on-site plume containment. An Administrative Order by Consent was issued in October 1993 for the removal of wastes in lagoon #1. The remedial investigation for the cleanup of contamination sources is scheduled for completion in mid 1994 and completion of the feasibility study for OU #3 is anticipated in early 1995.

Environmental Progress



The replacement drinking water systems are fully operational and provide a safe water supply. The pump and threat remedy for on-site containment of contaminated groundwater was constructed and operational in March 1994. Pumping of lagoon #1 began in October 1993 and should be completed by June 1994. Additional investigations have determined the extent of contamination, and alternatives including Soil Vapor Extraction and Low Temperature Thermal Desorption are currently being evaluated to address further contamination cleanup at the National Presto site.

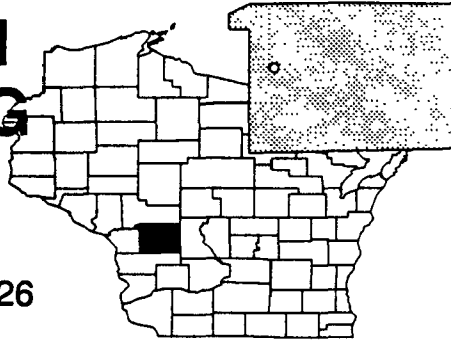
Site Repository



Chippewa Falls Public Library, 105 West Central Road, Chippewa Falls, WI 54729
Hallie Town Hall, Route 9, 957 Hagen Road, Chippewa Falls, WI

NORTHERN ENGRAVING COMPANY WISCONSIN

EPA ID# WID006183826



EPA REGION 5

Monroe County
Sparta

Site Description

The Northern Engraving Company (NEC) owns and operates a manufacturing facility at this site. The company produces metal nameplates, dials, and decorative trim for the auto industry. Four separate areas of contamination at the NEC facility have been identified, including the sludge lagoon, seepage pit, sludge dump site, and lagoon drainage ditch. The contaminants found in these areas were from past wastewater treatment and disposal practices used at the site. Since the 1960s, wastewaters and by-products of the metal finishing process have been treated on site. An on-site wastewater treatment lagoon was installed in 1967. Rinse water from the plant was collected and treated with sodium hydroxide for precipitation to metal hydroxide solids. The treated rinse water was discharged to the sludge lagoon to allow solids to settle. The treated lagoon effluent was discharged to the LaCrosse River by way of a storm drainage ditch. Between 1968 and 1976, the sludge lagoon accumulated solids from the treated wastewater. On two occasions, sludge was removed from the lagoon and landfilled in an on-site dump area. The sludge lagoon eventually was removed from service in 1980, and an on-site seepage pit was used to neutralize spent acid waste. The pit was removed from service, filled with clean material, and graded in 1981. A new aboveground wastewater treatment system was installed in 1976 and modified in 1984. The nearby LaCrosse River is used for recreational activities.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



The on-site drainage ditch was contaminated with trichloroethylene (TCE), a volatile organic compound, from metal finishing wastes. Groundwater and sludge were contaminated with heavy metals including copper, chromium, iron, zinc, nickel, and fluoride. Site cleanup has eliminated the potential for health risks.

Cleanup Approach

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

Response Action Status



Entire Site: In 1988, under EPA monitoring, the parties potentially responsible for the contamination excavated and solidified approximately 4,400 cubic yards of sludge and soil, installed a cover over the lagoon to prevent further site contamination, imposed access and deed restrictions on the seepage pit property, and implemented groundwater monitoring. A full year of groundwater sampling has been completed, and results indicate that contamination levels have been reduced as a result of the surface cleanup. Further groundwater monitoring will be continued on a quarterly basis until a baseline for water quality for the area can be established for purposes of comparison. Once the baseline is established, the monitoring will be conducted semi-annually. The need for further monitoring will be evaluated in 5 years.

Site Facts: A Consent Decree was signed by the potentially responsible parties, the EPA, and the State, under which the company conducted investigative and site cleanup activities.

Environmental Progress



The removal activities described above have addressed surface wastes and contaminated material and have halted further groundwater impacts. The Northern Engraving Company site no longer poses a threat to human health or the environment.

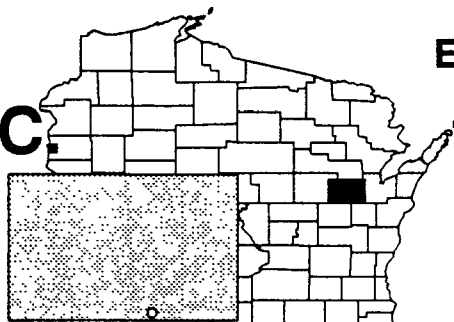
Site Repository



Sparta Public Library, West Main & Court Streets, Sparta, WI 54656

N.W. MAUTHE COMPANY, INC WISCONSIN

EPA ID# WID083290981



EPA REGION 5

Outagamie County
Appleton

Site Description

The 2-acre N.W. Mauthe Company, Inc. site operated as a chromium electroplating facility from 1946 to 1976. The building was leased during this time by Wisconsin Chromium Corporation. Norbert Mauthe had owned the facility since 1966, and the property is now being managed by his estate. The facility was a generator of hazardous waste, which has severely contaminated the site with chromium. The chromium leaked through the floor and from a vent directly onto the ground. The EPA conducted tests in 1985 and detected chromium and volatile organic chemicals (VOCs) in the soil and groundwater. In 1982, contaminated groundwater from the site entered the basement of a home and was discharged to storm sewers that lead to the Fox River, 1/2 mile from the site. The river drains into Lake Winnebago, which provides drinking water to 60,000 people. The river flows toward the City of Green Bay and empties into the Green Bay. Approximately 11,000 people obtain drinking water from public and private wells within 3 miles of the site.

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

NPL LISTING HISTORY

Proposed Date: 06/24/88

Final Date: 03/31/89

Threats and Contaminants

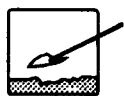


Groundwater and soils contain various VOCs and heavy metals including chromium. People who come in direct contact with or accidentally ingest contaminated groundwater or soil may be at risk. If contaminants leach into the river or lake, wildlife in or around the water may be harmed.

Cleanup Approach

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

Response Action Status



Initial Actions: In 1982, the State installed a system to collect shallow groundwater, preventing puddles from forming. A portion of the site was covered with asphalt to limit rainwater from coming into contact with the contaminated soil. Removal action consisted of installing fencing, decontaminating the building and excavating and temporarily storing grossly contaminated soils.



Entire Site: The State has completed an investigation to determine the extent of groundwater and soil contamination at the site. The Record of Decision (ROD) was signed March 3, 1994. The ROD calls for removal of most contaminated soil and groundwater collection, treatment and discharge into the sanitary sewer, and building demolition. The Remedial Design is in progress with CH2M Hill.

Environmental Progress



Initial actions to install a shallow groundwater collection system and paving a portion of the site with asphalt have reduced the potential for migration of contaminants from the N.W. Mauthe Company, Inc. site while studies are underway and cleanup activities are being planned.

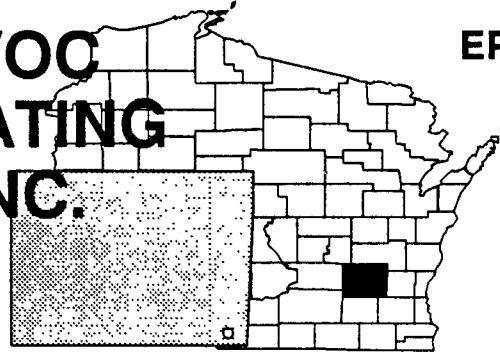
Site Repository



Appleton Public Library, 225 North Oneida Street, Appleton, WI 54911

OCONOMOWOC ELECTROPLATING COMPANY, INC. WISCONSIN

EPA ID# WID006100275



EPA REGION 5

Dodge County
Ashippin

Site Description

The 5-acre Oconomowoc Electroplating Company, Inc. site is adjacent to Davy Creek and 300 acres of wetlands. The shop was in operation from 1957 to 1992, using heavy metals in electroplating operations. The wastes generated from the process were discharged into the adjacent wetlands. Degreasing operations also were performed in conjunction with the process. In 1972, the company built two unlined settling lagoons to increase wastewater treatment capacity. Sludges accumulated in the lagoons and some were removed throughout the 1970s. During this time, the company constructed a wastewater treatment plant. Inefficient operation of the lagoons and the treatment plant, as well as discharges of untreated wastewater, have resulted in an accumulation of metal sludge in a wetland adjacent to Davy Creek, a tributary to the Rock River a mile downstream of the site. The unlined lagoons, chemical spills, and plant operations also may have contaminated the groundwater in the area. Plating wastes ate through the concrete waste troughs in the plant floor and seeped out of the ground near the plant walls. Drums of wastes leaked on site, and sludges spilled from lagoon impoundments. Approximately 1,400 people live within 3 miles of the site. The nearest house is 150 feet from the site.

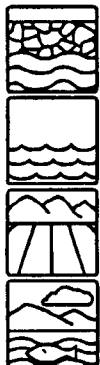
Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



The groundwater is contaminated with heavy metals, cyanide, and volatile organic compounds (VOCs) from electroplating activities. The wetland and creek sediment and surface water are contaminated with heavy metals including arsenic, cadmium, copper, and lead. The on-site soil is contaminated with heavy metals including chromium, cadmium, copper, and arsenic. Ingesting, coming in direct contact with, or inhaling the contaminated soil, groundwater, and creek sediments may cause a potential health threat. In the wetlands and creek sediments the contaminants that threaten the wetlands, and aquatic organisms could bioaccumulate pollutants in their tissues, possibly pose a threat to anyone consuming those organisms.

Cleanup Approach

The site is being addressed in three stages: an immediate action and two long-term remedial phases focusing on cleanup of the lagoons and soils and cleanup of the wetlands.

Response Action Status



Immediate Action: In 1987, the EPA installed a fence around the entire site to restrict access. When the company declared bankruptcy in 1991 it ceased operations. EPA emergency response then cleaned up the site, disposed of drummed wastes and demolished the building.



Long Term Remedial Actions: Planned long term remedial actions include: Installation and operation of a groundwater pump and treat system; lagoon clean closure, remaining soil removal, and wetland/creek sediment excavation and cleanup. Design work on the long term actions began in 1990 and was completed in 1993. Design work areas are small, work has to be sequenced. First the remaining stockpiled soil will be removed and the wetlands/creek work will be completed. This work will be completed by the fall of 1994. The ground pump and treat system will be completed by summer 1996. Then the lagoon water can be treated and closed by the end of 1996.



Wetlands: In 1990, the EPA began an investigation into the nature and extent of contamination in adjacent wetlands. The study was completed in late 1993.

Site Facts: In 1981, the State ordered the Oconomowoc Electroplating Company, Inc. to restrict its discharge of heavy metals into the wetlands.

Environmental Progress



The fencing of the site has reduced the potential for exposure to contaminated materials at the Oconomowoc Electroplating Company, Inc. site while investigations are taking place and cleanup activities are being planned. Removal and disposal of the process building and its associated equipment and chemicals and wastes has also reduced exposure risks.

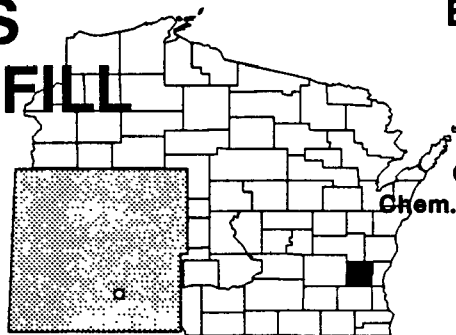
Site Repository



F & M Bank, North 533, Highway 67, Ashippun, WI 53003

OMEGA HILLS NORTH LANDFILL WISCONSIN

EPA ID# WID000808568



EPA REGION 5

Washington County
Germantown

Other Names:
Germantown Landfill 1
Chem. Waste Mgmt. of Wisconsin
Lauer Landfill II

Site Description

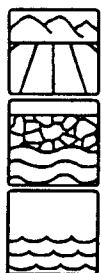
The Omega Hills North Landfill Site covers 83 acres in the southeastern part of Wisconsin, near metropolitan Milwaukee. The State of Wisconsin licensed this landfill to accept hazardous wastes from 1977 until 1982. It is estimated that the facility accepted about 5,000 tons of hazardous waste each year. The State estimates there are now over 150,000 cubic yards of waste on the site. This total includes 3,300 cubic yards of heavy metals and 350 cubic yards of solvents. About 250 Wisconsin industries have used the site for hazardous waste disposal. Large amounts of asbestos have been and still are being disposed of at the site. More than 15 million gallons of liquid wastes were disposed of at this site each year until it stopped accepting such wastes; this includes an estimated 6 million gallons of hazardous liquid waste. The site stopped accepting hazardous wastes in 1982 and liquid wastes in 1983. In 1989, the site stopped accepting all wastes, and a soil cover was installed in accordance with the WDNR Solid Waste requirements. The facility originally was built below the level of groundwater under the site. This allows leachate to flow away from the landfill and into an extensive network that collects the waste material before it reaches the groundwater. However, the system for collecting leachate has not operated as it was designed, which has resulted in 200 million gallons of liquid waste accumulating under the site. Approximately 42,000 people live within a 3-mile radius of the site. There are 874 private wells within 3 miles of the landfill. The nearest municipal well is 1 1/2 miles away, and the nearest residences are 150 yards from the site. Several office buildings are located within 100 yards of the property.

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



Leachate has been migrating from the site and has contaminated the shallow groundwater under several private wells in the area with volatile organic compounds (VOCs) including benzenes, toluene, and vinyl chloride. Leachate contains heavy metals such as zinc, nickel, arsenic, and cadmium, as well as phthalates, a by-product of plastic production, and VOCs including trichloroethylene (TCE). Leachate on site also contains cyanide, gases, petrochemicals, and pesticides. Surface water in off-site streams contains VOCs. Individuals could be exposed to hazardous chemicals from the site by drinking contaminated groundwater, eating crops grown with contaminated water or soil, or by inhaling contaminated dust particles.

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: Currently, a number of low fences surround the site and signs have been posted warning people not to trespass on the landfill property. The site is closed and covered with 4 feet of compacted clay. Under State monitoring, the owner of the site installed additional perimeter slurry or compacted clay cut-off walls and systems to collect leachate, preventing it from entering the groundwater under the site. The owner also installed a pre-treatment plant for the leachate and devices to intercept and collect gases that escape from the landfill.



Entire Site: The owner of the site is conducting a study to determine the nature and extent of contamination. Once the investigation has been completed and all site contamination has been identified, the State will select the final cleanup strategy for the site, possibly under authority of the Resource Conservation and Recovery Act (RCRA) rather than Superfund.

Site Facts: In 1989, the owner of the site entered into a stipulated agreement with the State to decrease the levels of leachate under the site and to address other environmental problems. The facility closed later that year.

Environmental Progress



Collecting and treating leachate, covering the landfill, and fencing and posting signs at the site have reduced exposure to contaminants while investigations leading to the selection of final cleanup remedies for the Omega Hills North Landfill are taking place. Most residents are currently connected to the municipal water.

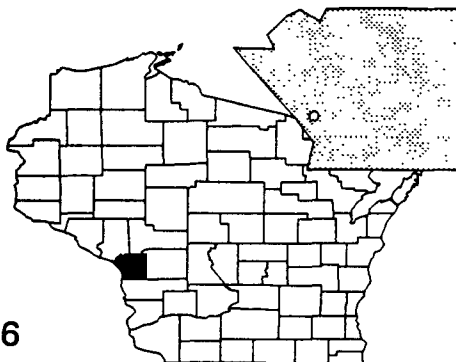
Site Repository



Not established.

ONALASKA MUNICIPAL LANDFILL WISCONSIN

EPA ID# WID980821656



EPA REGION 5

LaCrosse County
Onalaska

Site Description

The Onalaska Municipal Landfill covers 7 acres of an 11-acre parcel located in a rural, agricultural area near residential homes and a sportsman's club. The landfill area was originally mined as a sand and gravel quarry in the early 1960s. From 1969 to 1980, the Town of Onalaska operated a licensed municipal landfill at the former quarry. Municipal trash and industrial chemical wastes including naphtha, toluene, and paint residues were disposed of at the site. Open burning also occurred until 1971, when the Wisconsin Department of Natural Resources (WDNR) banned this practice after receiving complaints of heavy smoke and odors. After 1971, barrels containing waste were emptied into pre-excavated holes and, occasionally, full barrels were buried. In one case, it is alleged that 300 barrels were buried, and in another case, it is alleged that a 500-gallon tank truck partially filled with paint residues was buried at the site. The EPA estimates that the equivalent of 2,500 drums of liquid wastes were disposed of at the site. The WDNR closed the landfill in 1980. Areas of the site were capped with sand and silts. The closest residence is within 300 feet of the site, and approximately 320 people live within a 1-mile radius of the site. The nearby Black River is a major recreational resource for residents in the surrounding area.

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

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Groundwater contains volatile organic compounds (VOCs) including trichloroethylene (TCE) and toluene, naphtha, and barium. The groundwater in the sand and gravel aquifer below the site is believed to be in contact with the buried waste during times of high water. As a result of this contact, soil outside of the landfill has been contaminated with floating petroleum and hydrocarbon products. Chemicals in the landfill are leaching into the groundwater, which may eventually reach an adjacent wetlands area and the nearby Black River. People could be exposed to contaminants from the site by drinking contaminated groundwater and by breathing in vapors that escape from contaminated groundwater when used for washing and showering. Groundwater flows from the site toward the upper Mississippi River Wildlife Refuge, which also borders the Black River and Lake Onalaska. Contaminated runoff from the site could affect these surface waters, as well as the aquatic plants and animals and wildlife residing in these areas.

Cleanup Approach

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

Response Action Status



Initial Actions: The Town of Onalaska placed a cap over the landfill in 1982 to prevent seepage from spreading contaminants. A residential well was replaced due to contamination that exceeded the Federal drinking water and State groundwater quality standards.



Entire Site: Based on studies of the site involving sampling and extensive field work, the EPA and the WDNR considered various technologies to address contamination and chose, in a 1990 decision: in-situ bioremediation, groundwater pump and treat, and landfill with gas venting capping to address contaminated groundwater, and soil. The EPA began designing the cleanup approach in early 1991 and has just recently completed this activity in late 1992. The landfill cap work was substantially completed by late 1993. The insitu bioremediation and groundwater pump and treat system is scheduled to start in May 1994.

Environmental Progress



Placing a new cap over the landfill and replacing a residential water well have reduced any imminent threats of direct contact with hazardous materials while cleanup activities for the Onalaska Landfill site are being planned. Residential well sampling and testing is ongoing.

Site Repository



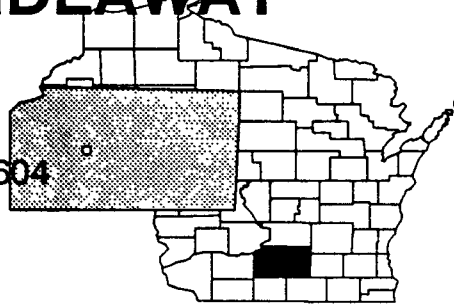
LaCrosse County Public Library, Onalaska Branch, 741 Oak Avenue, South,
Onalaska, WI 54650

Administrative Records:

Holmen Library, 103 State Street, P.O. Box 539, Holmen, WI 54636

REFUSE HIDEAWAY LANDFILL WISCONSIN

EPA ID# WID980610604



EPA REGION 5

Dane County
Town of Middleton

Site Description

The 23-acre Refuse Hideaway Landfill site is located in rural Dane County. This privately owned unlined landfill received municipal, commercial, and industrial wastes between 1974 and 1988. Wastes that were disposed of at the site included full barrels of glue and paint, spray paint booth by-products and paint stripper sludge, and spill residues containing volatile organic compounds (VOCs). In 1988, after contaminants were detected in three private wells southwest of the site, the landfill was closed by the Wisconsin Department of Natural Resources (WDNR). The owner of the landfill complied with the closing order by covering the landfill with clay and soil and then seeding the cover. The owner declared bankruptcy in 1989. WDNR investigated the site in 1990 and discovered high methane levels at the landfill perimeter and erosion of the cap. The investigation also revealed the extent of contaminants in groundwater. A plume of contaminated groundwater extends as far as 3,800 feet southwest of the site. Public and private wells within 4 miles of the site provide water supplies to an estimated 14,600 people in the area; the nearest of these wells is privately owned and within a half mile of the site.

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

NPL Listing History Proposed Date: 02/07/92 Final Date: 10/14/92

Threats and Contaminants



On-site and off-site groundwater, including private wells southwest of the site, are contaminated with various VOCs, such as vinyl chloride, tetrachloroethene, trichloroethene, 1,1 dichloroethane and 1,2 dichloroethane. Individuals who accidentally ingest or come into direct contact with contaminated groundwater could be at risk.

Cleanup Approach

The site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the contaminated plume of groundwater.

Response Action Status



Immediate Actions: In 1988, the landfill was closed. The owner of the landfill covered the area with layers of clay and soil and then seeded the cover. In response to the detection of contaminants in groundwater, two contaminated private wells have been outfitted with treatment systems, another well was been taken out of service, however, the WDNR continues to provide bottled water to the residence because a business is located in another building on the property. In 1991, WDNR installed a methane gas and leachate collection system. In the fall of 1992, WDNR completed repair of surface erosion on the landfill cap.



Entire Site: In early 1993, under a cooperative agreement with the EPA, the WDNR initiated Remedial Investigation/Feasibility Study (RI/FS) activities focusing on groundwater remediation. The investigation, scheduled for completion in late 1994, also will identify various cleanup technologies.

Environmental Progress



Immediate actions such as the installation of treatment systems on some contaminated wells and closing other wells have reduced immediate threats posed to the safety and health of the nearby population. Investigations are underway and activities are being planned to address long-term cleanup of the contaminated groundwater emanating from the site.

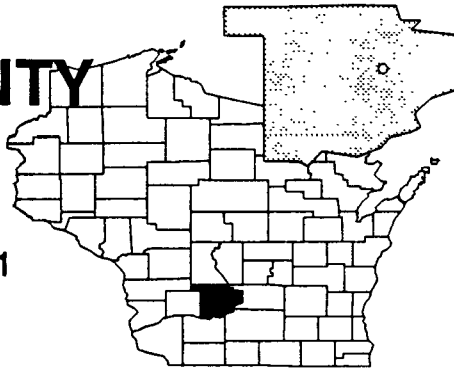
Site Repository



Middleton Public Library, 7426 Hubbard Ave., Middleton WI

SAUK COUNTY LANDFILL WISCONSIN

EPA ID# WID980610141



EPA REGION 5

Sauk County
10 miles west of Baraboo

Site Description

The 14-acre Sauk County Landfill site operated as a landfill, accepting municipal and foundry wastes. In 1973, the County received a permit from the State to accept municipal waste, which was hauled in from several small municipalities and placed on the site until 1983. The landfill also accepted foundry wastes from Grede Foundry, Inc. Foundry sand formed berms within the landfill area. An estimated 2 percent of the wastes were baghouse dusts containing lead and cadmium. The landfill was closed in 1983, and clay was placed on the top and sides of the facility. An EPA inspection in 1985 found that methane gas was being generated from site wastes and that volatile organic compounds (VOCs) and metals were present in on-site monitoring wells. Approximately 900 people obtain drinking water from private wells within 3 miles of the site.

In 1991, the Sauk County entered into a contract with the State to perform a remedial investigation and feasibility study as well as to complete source control operable unit. A proposed plan for the source control operable unit was issued in September 1993 by the State with plans for implementation in the summer 1994. The PRPs are also proceeding with the remedial investigation for the groundwater contamination.

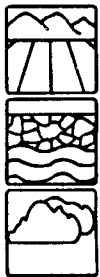
Site Responsibility: This site is being addressed through State enforcement actions.

NPL LISTING HISTORY

Proposed Date: 06/24/88

Final Date: 10/04/89

Threats and Contaminants



Soil and groundwater is contaminated with the VOCs per state and heavy metals per state. The greatest potential health threat is drinking contaminated groundwater or inhaling vapors from the groundwater. Inhaling air contaminated with methane gas also is a potential health threat.

Cleanup Approach

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

Response Action Status



Initial Actions: The landfill was closed in 1983, at which time a clay cap was placed over it to prevent water from entering the landfill and spreading contaminants. The source control operable unit action will include upgrading the clay cap and installing a gas collection system.



Entire Site: The State, in cooperation with the EPA, began an investigation into the nature and extent of soil, groundwater, and other contamination at the site in late 1991. The remedial investigation will be completed in late 1995, at which time the State, in cooperation with EPA will determine the appropriate response for the groundwater operable unit.

Environmental Progress



With the initial covering of the landfill with clay and the installation/gas collection system, the potential for hazardous materials moving into the groundwater or the surrounding area has been reduced while investigations leading to the final selection of cleanup remedies are underway at the Sauk County Landfill site.

Site Repository



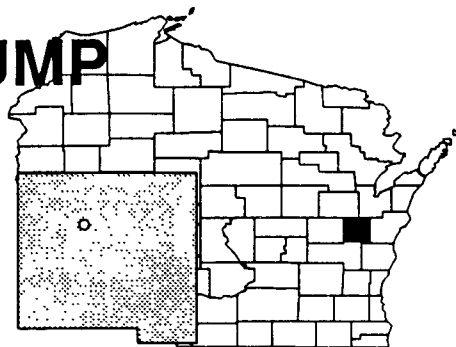
Information Repository
Reedsburg Public Library, 345 Vine St., Reedsburg, WI

Administrative Record
Baraboo Public Library, 230 Fourth Ave., Baraboo, WI

SCHMALZ DUMP

WISCONSIN

EPA ID# WID980820096



EPA REGION 5

Calumet County
Town of Harrison

Site Description

The 3/4-acre Schmalz Dump site is located on the northern shore of Lake Winnebago and was the location of unauthorized industrial dumping during the 1960s and 1970s. The previous site owner began filling the property in 1968. Records show that the wastes disposed of included car bodies, stone, trees, pulp chips, mash, fly ash, bottom ash, and demolition debris. Adjacent property to the north and west of the site also was used for waste disposal. Reportedly, these wastes included ashes and a white sludge. Evidently, garbage was deposited in a marshy area that once existed immediately beyond the southern property line. In 1972 and 1973, the site accepted fly ash and bottom ash from a utility company. In 1978 and 1979, the site accepted polychlorinated biphenyl (PCB)-contaminated building demolition debris that was later used to fill a wetland area. In 1979, in response to residents' complaints, the State ordered the transportation of demolition materials to the site to cease. There are about 60 residences and businesses within 1,000 feet of the property, and the site is about 500 feet from Lake Winnebago, a source of public water supply. All water users in the area are connected to the Menasha water system, although some have retained wells for auxiliary purposes. The neighboring City of Appleton, with a population of 60,000, has its drinking water intake approximately 1,200 feet from the shore of Lake Winnebago.

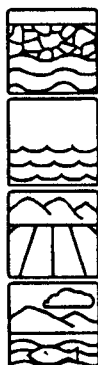
Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Groundwater is contaminated with heavy metals including lead and chromium. Sediment and surface water samples collected from a pond near the disposal area and from the drainage ditches leading into the pond indicated the presence of PCBs, and heavy metals. Soil was contaminated with heavy metals and PCBs. Potential health threats to people include drinking contaminated surface water and coming into direct contact with contaminated sediments.

Cleanup Approach

The site is being addressed in three stages: immediate actions and two long-term remedial phases focusing on cleanup of soil and sediments and controlling the source of contamination.

Response Action Status



Immediate Actions: In 1985, the EPA constructed a 6-foot-high security fence and posted warning signs around the entire site boundary to restrict access.



Soil and Sediments: In 1988, the EPA completed excavating and removing 3,500 cubic yards of PCB-contaminated debris-laden soil and sediments from the site grounds and from an on-site pond.



Source Control: The EPA completed the technical specifications for activities to eliminate the potential for contact with contaminated soils. The selected cleanup technologies include installation of a soil cap operation and maintenance of a groundwater monitoring program, and implementation of a voluntary well abandonment program for nearby wells. Construction was completed on the cap in the fall of 1993, with seeding scheduled to occur in the spring of 1994.

Site Facts: In 1989, the EPA and one of the eight parties potentially responsible for the site contamination reached a \$2 million settlement which paid for a portion of the site cleanup activities for the first operable unit (i.e., removal of PCB contaminated debris). A consent decree, entered on August 31, 1993, requires another one of the eight PRPs to pay for all the response costs for the soil cap, which is the second operable unit.

Environmental Progress



Much of the contaminated material has been removed from the Schmalz Dump site and has been disposed of at a federally approved facility. site clean up goals for PCB-contaminated debris and surface water contamination were achieved at the site. Therefore, no further cleanup actions related to the debris or surface water are needed. The construction of a soil cap and a security fence surrounding the site, have reduced the potential for exposure to hazardous materials while long-term groundwater monitoring is conducted. Consequently, all remedial activities have been completed at the site with the exception of seeding the cap.

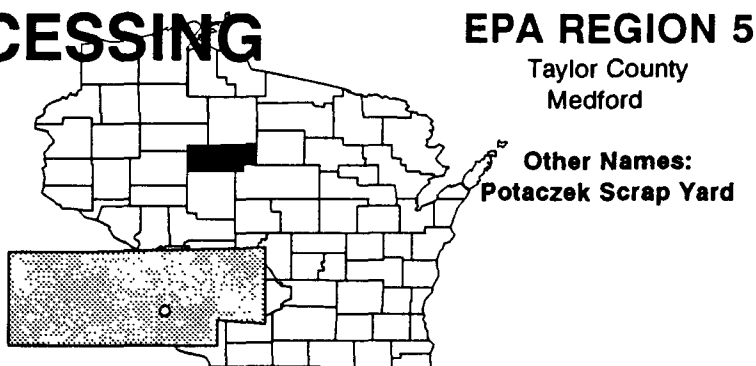
Site Repository



University of Wisconsin Center, Fox Valley Library, 1478 Midway Road, Menasha, WI 54952

SCRAP PROCESSING CO., INC. WISCONSIN

EPA ID# WID046536785



Site Description

The 2-acre Scrap Processing Co. site, located approximately 1 mile northwest of Medford, currently operates as a salvage yard. From 1955 to 1974, and periodically until 1981, the company cracked lead and acid batteries to reclaim the lead that was smelted on site. During the battery crushing operation, the equivalent of 399,000 gallons of acid wastes contaminated with heavy metals from the batteries ran from the crushing area, along an unlined ditch, and into an unlined pond. The pond has intermittently overflowed into the Black River, located along one side of the site, contaminating it with heavy metals and acid. Old cars, car parts, and other materials commonly found in scrap yards are present on the site. A company that manufactures machine parts is located next to the scrap yard. The building that was used for battery cracking is still standing and is located on the western end of the site. The site is bordered by a residential area, a few older homes, and a mobile home park. Two of the older homes across the street from the site use private wells. The residents in the subdivision to the east of the site and people in the mobile home park use water from Medford municipal wells. Fishing is common along the river, and several parks are located along the western side of the river, across from the site.

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

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

Threats and Contaminants



Soils, and sediments are contaminated with heavy metals including lead, barium, copper, and zinc. Elevated levels of polychlorinated biphenyls (PCBs) were also found in soil samples. Potential health threats to people include accidental ingestion of and coming in direct contact with contaminated soil. The main contaminant of concern at this site is lead, to which pregnant women and children are highly sensitive. In early 1990, five nearby private wells were sampled and showed no evidence of contamination.

Cleanup Approach

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

Response Action Status



Initial Actions: In 1984, the potentially responsible party drained the unlined pond and disposed of the liquid in the municipal storm sewer. A total of 7,200 gallons of water from the pond were transported to a manhole in the city park that is located on the eastern side of the river. The first 6 inches of lead-contaminated soil and sediment were excavated and hauled away for off-site disposal at a hazardous waste landfill. Remaining contaminated soil was classified as solid waste and was disposed of at the Medford Municipal Landfill. Excavation and removal of wastes were completed in 1986.



Entire Site: The EPA began an investigation into the nature and extent of remaining contamination at the site in 1992. The investigation reviewed the completed initial actions, define the contaminants of concern, and determined if additional site cleanup. This investigation is planned for completion in mid-1994.

Site Facts: In 1983, the State brought an enforcement action against Scrap Processing, the party potentially responsible for the site contamination, which resulted in the company being ordered to perform initial cleanup actions at the site.

Environmental Progress



Much of the contaminated materials, including soil and liquids, have been excavated and properly disposed of away from the site, reducing the potential of exposure to hazardous materials. Investigations to determine whether additional cleanup is required at the Scrap Processing Co., Inc. site will be completed in 1994.

Site Repository



Medford Public Library, 104 E. Perkins Street, Medford, WI

SHEBOYGAN HARBOR & RIVER

WISCONSIN

EPA ID# WID980996367



EPA REGION 5

Sheboygan County

55 miles north of Milwaukee

Site Description

The Sheboygan Harbor & River site extends approximately 14 miles through the communities of Sheboygan Falls, Kohler, and Sheboygan. The site area includes Sheboygan Harbor, located on Lake Michigan, and the lower Sheboygan River, which discharges into the Sheboygan Harbor. In 1977, the State detected polychlorinated biphenyls (PCBs) during routine sampling of fish. Since then, PCBs have been detected in fish, wildlife, surface water, sediments in the harbor and river and in flood plain soils. The highest concentrations of PCBs have been detected in sediments immediately downstream from a die-casting plant in Sheboygan Falls. Concentrations decline farther downstream from the plant. Heavy metals also have been found at elevated levels in sediments. Tecumseh Products Company excavated contaminated soils from its property along the river and disposed of them off site in 1978. The Sheboygan River drains into Lake Michigan, the source of drinking water for approximately 58,000 people within the Sheboygan/Sheboygan Falls/Kohler metropolitan area. The EPA has detected PCBs in sediments within a mile of the drinking water intakes. Both the Sheboygan Harbor and River are used for recreation.

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

NPL LISTING HISTORY

Proposed Date: 09/18/85

Final Date: 06/10/86

Threats and Contaminants



Sediments are contaminated with PCBs and a wide variety of heavy metals. Soils and surface water are contaminated with PCBs and heavy metals including arsenic, chromium, copper, lead, and zinc. People who come in direct contact with or ingest contaminated soil, sediments, or surface water may be at risk. Because fish and wildlife are contaminated with PCBs, people who eat contaminated fish or waterfowl also may suffer adverse health effects. In 1978, the State advised residents not to eat fish from the Sheboygan River and two tributaries, the Mullet and Onion Rivers, because of PCB contamination. In 1987, the State also issued an advisory not to eat wildlife from the area. The advisories are still in effect.

Cleanup Approach

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

Response Action Status



Immediate Actions: In 1989-1990, Tecumseh Products Co. dredged contaminated sediments from the upper Sheboygan River and is using them to conduct an investigation to test and evaluate potential cleanup technologies for treating PCB-contaminated sediments. A confined treatment facility was built on site and is being used to study the effectiveness of enhanced biodegradation for treatment of PCBs in sediments. Other investigations have evaluated methods for dredging, handling and transporting sediments of fish, sediments, and water has also continued a draft report containing the results of this phase of work will be completed in 1994.

In 1990-1991, Tecumseh Products Co. dredged additional contaminated sediments from the Sheboygan River under a removal action. These sediments were placed into a large tank built on site and will remain in temporary storage until the Record of Decision determines their final disposition.



Entire Site: Tecumseh Products Company, Inc. began an investigation in 1986 to determine the nature and extent of site contamination. The investigation is assessing risks to human health and the environment and will result in the evaluation of potential cleanup alternatives. The investigation has included sediment sampling of the river and harbor, flood plain soil sampling, river and harbor water sampling, fish sampling, and caged fish studies. A Remedial Investigation report was completed in 1990. In late 1989, a second phase of investigation was begun, called the Alternative Specific Remedial Investigation (see Immediate Actions above). Currently, potential cleanup alternatives are being evaluated. A proposed plan recommending a cleanup action is planned to be released for public comment in late 1994, with a final decision to follow.

Site Facts: In 1986, the EPA and the State signed a Consent Order with Tecumseh Products, requiring the company to conduct an investigation at the site. In 1990, the EPA and Tecumseh products signed a Consent Order, under which Tecumseh agreed to remove PCB-contaminated sediments.

Environmental Progress



Removal of PCB-contaminated sediments from the river has reduced the threat to the local population, wildlife, and the environment while studies of final cleanup alternatives are continued at the Sheboygan Harbor & River site.

Site Repository



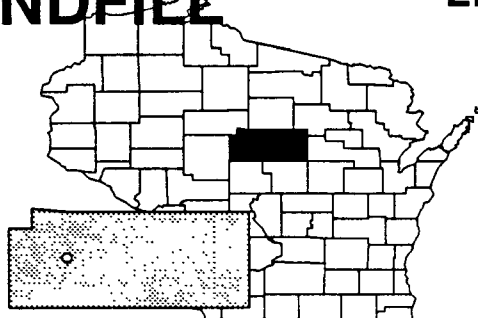
Mead Public Library, 710 Plaza Eight, Sheboygan, WI 53801
Sheboygan City Hall, 828 Center Avenue 2nd Floor, Sheboygan, WI
Sheboygan County Water Quality Task Force, 631 New York Avenue, Sheboygan, WI

SPICKLER LANDFILL WISCONSIN

EPA ID# WID980902969

EPA REGION 5

Marathon County
Spencer



Site Description

The 80-acre Spickler Landfill site contains a 7 1/2-acre former landfill now used as a tree nursery. The landfill began operations under private ownership in 1970, disposing of both municipal and industrial wastes. The facility was sold to Mid-State Disposal, Inc., which operated the facility from 1972 to 1973. In 1975, Mid-State Disposal sold the site back to the original owner, who subsequently resold the property in 1976 to the present owner. The landfill received municipal waste and asbestos dust at a time when the landfill had no liner or leachate controls. The area subsequently was capped with native clay soils. In 1971, with State approval, approximately 1,280 cubic yards of mercury sludge were deposited at the site in a clay-lined pit. Later that year, the pit was capped with clay soil. The landfill closed in 1976. A site inspection in 1984 led the EPA to observe that the pit had subsided, and water had ponded on top. Leachate was seeping into a ditch adjacent to the site, threatening local surface water. Approximately 75 people live within a mile of the site, and an undetermined number of private wells are located within 1/4 mile. The sandstone aquifer provides drinking water to private wells serving 2,000 people within 3 miles of the site.

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

NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 07/21/87

Threats and Contaminants



Groundwater in both the upper and lower portions of the aquifer is contaminated with heavy metals including barium, as well as volatile organic compounds (VOCs) including toluene. Potential health threats to people include drinking or coming in direct contact with contaminated groundwater.

Cleanup Approach

This site is being addressed as two operable units (OUs). In June 1992, a Record of Decision (ROD) was signed which selected a remedy for OU #1 consisting of construction of clay caps for the landfill and the mercury sludge pit, and installation of leachate and landfill gas collection systems. OU #2 consists of site groundwater, and has not yet had a ROD drafted.

Response Action Status



Entire Site: In accordance with the signed Consent Order, the Remedial Investigation/Feasibility Study (RI/FS) was completed by the PRPs in June 1992. In September, 1992, the Potentially Responsible Parties (PRPs), BASF and Weyerhaeuser, entered into an Administrative Order on Consent (AOC) with EPA to perform the Remedial Design (RD) for the first OU. As part of the scope for the AOC, the leachate collection system was installed, and is scheduled for operation in May 1994. A Unilateral Administrative Order (UAO) was issued in February, 1994, for the Remedial Action (RA), which requires construction of the clay landfill caps.

Site Facts: The parties potentially responsible for the site contamination signed a Consent Order with EPA and the State, under which the parties agreed to conduct a study of the site.

Environmental Progress



The final remedy for OU #1 has been selected, construction of the leachate collection system has been completed, and is scheduled for startup in May 1994. Construction of the clay landfill caps will begin in May 1994, and a ROD for OU #2 should be drafted by the end of 1994.

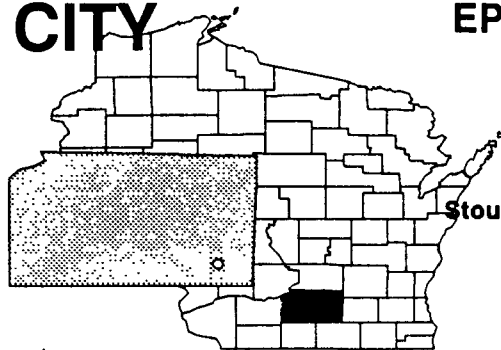
Site Repository



Spencer Village Hall, 117 East Clark Street, Spencer, WI 54479

STOUGHTON CITY LANDFILL WISCONSIN

EPA ID# WID980901219



EPA REGION 5

Dane County
Stoughton

Other Names:
Stoughton Landfill # 113

Site Description

The 27-acre Stoughton City Landfill was purchased by the City of Stoughton in 1952 for landfill operations. Between 1952 and 1969, the site was operated as an uncontrolled dump. In 1969, the site began operating as a State-licensed landfill. The landfill originally was established for the disposal of commercial and municipal wastes. Local residents also used the landfill for household waste disposal. Uniroyal, Inc., a plastics and rubber products manufacturer, disposed of wastes at the site from 1953 to 1962. The wastes primarily consisted of solvents, other liquid chemicals, and vinyl plastic scrap. During this time, open burning of the liquid wastes was common, and soil was used to cover up the smoldering residue. Liquid wastes were also reported to have been disposed of in boreholes along the western portion of the landfill. A 1972 Wisconsin Department of Natural Resources (WDNR) license prohibited the disposal of hazardous waste at the site. In 1978, the site was capped, seeded, and closed according to WDNR regulations. As part of the closure plans, six wells were installed to monitor groundwater conditions at and near the site. The landfill officially was closed in 1982, and plans were developed by Stoughton to establish a park on top of the revegetated site. The WDNR sampled the monitoring wells in 1983 and found that two of the six wells contained elevated levels of volatile organic compounds (VOCs). Routine sampling conducted by the City of Stoughton also indicated the presence of VOCs in water collected from the monitoring wells. Approximately 10,000 people live within a 3-mile radius of the site. The site is adjacent to the Yahara River, and wetlands border the site on three sides.

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

NPL LISTING HISTORY

Proposed Date: 10/15/84

Final Date: 06/10/86

Threats and Contaminants



The groundwater is contaminated with various VOCs and inorganic compounds including arsenic and could be hazardous to the health of individuals if it is ingested over a long period of time. The municipal wells in the City of Stoughton have a potential of being contaminated by the hazardous materials at the site; however, because of their depth and location, the risk is low. Sediments contain elevated levels of polycyclic aromatic hydrocarbons (PAHs), phthalates, cadmium, and lead. The site is adjacent to surface water and wetlands; zinc in water samples from the wetlands exceeds toxic levels.

Cleanup Approach

This site is being addressed in a single long-term remedial phase focusing on source control and groundwater treatment.

Response Action Status



Source Control and Groundwater Treatment: The parties potentially responsible for the contamination completed an investigation to determine the nature and extent of the contamination and to identify cleanup alternatives in 1991. The purpose of the investigation was to: identify the amounts and types of contaminants present; define the process through which contaminants may be released into the environment; define the direction in which contaminants may travel; define the boundaries of the contamination; and determine the routes of exposure and potential environmental and public health threats. The final cleanup remedy was selected in 1991 and calls for consolidation of waste exposed to groundwater; placement of a multi-layer cap over the landfill; installation of a fence around the site; restrictions on the use and placement of wells; groundwater monitoring; and extraction and treatment of contaminated groundwater if necessary. Additional groundwater sampling has shown that groundwater cleanup will be necessary. Groundwater treatment design will be initiated in 1994. Design activities of the final and full design began in late 1992.

Site Facts: Uniroyal, Inc. and the City of Stoughton signed a Consent Order in 1988 for the company to conduct further investigations of the site groundwater and surface water, under EPA and WDNR oversight. Uniroyal, Inc. has since declared bankruptcy and the City of Stoughton maintains it is financially unable to conduct the cleanup. Therefore, EPA has funded the design this far.

Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Stoughton City Landfill site while groundwater investigations are taking place and final cleanup activities are being planned. Methane monitoring in structures and residences nearby the site has shown that buildup of methane is not a cause for concern.

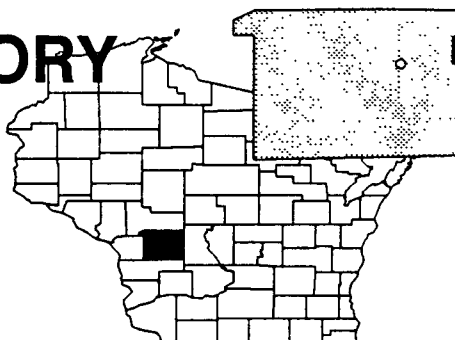
Site Repository



Stoughton Public Library, 304 South Fourth Street, Stoughton, WI 53589
Stoughton City Hall, 381 E. Main Street, Stoughton, WI 53589
Stoughton Utilities Office, 211 Water Street, Stoughton, WI 53589

TOMAH ARMORY WISCONSIN

EPA ID# WID980610299



EPA REGION 5

Monroe County
Tomah

Site Description

The 10-acre Tomah Armory site was operated by the City of Tomah as an open, unlined dump accepting both municipal and industrial wastes from the early 1950s to 1955. During part of this period, the City had a similar operation 2 miles to the south, which is known as the Tomah Fairgrounds, also an NPL site. Both Tomah sites accepted primarily municipal refuse. However, Union Camp Corporation notified the EPA that its polyethylene plant in Tomah had sent to the two sites 23,770 gallons of solvents and heavy metals, including lead and chromium components. The City sold part of the land to the Wisconsin National Guard for construction of an Armory. Homes were built on the rest of the land. According to the City's Director of Public Works, a portion of the dump was excavated and filled with sand before the buildings were constructed. Approximately 9,500 people draw drinking water from public and private wells within 3 miles of the site. The nearest well is 1 mile from the site. The Lemonweir River is approximately 500 feet away from the site. This river and Lake Tomah are used for recreation.

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

NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 07/21/87

Threats and Contaminants



The groundwater, soil, and surface water are contaminated with volatile organic compounds (VOCs) and heavy metals including chromium and lead. The contaminated groundwater, soil, and surface water could pose a health hazard to individuals if accidentally directly contacted or ingested. The contamination at the site could affect the wetland adjacent to the site. Nearby Deer Creek also could be polluted by the contamination from the site, and the trout living in the stream could bioaccumulate the toxic substances present in the site.

Cleanup Approach

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

Response Action Status



Entire Site: An investigation of the site began in 1993 to determine the nature and extent of the contamination and to evaluate alternative remedies for site cleanup. Once the investigation is completed, a final cleanup remedy will be selected. An in-house RI began in 1993 to determine the nature and extent.

Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Tomah Armory site while investigations are being planned.

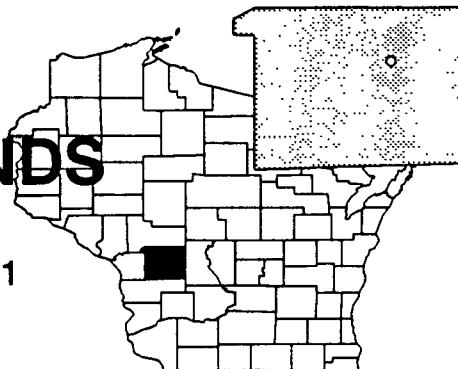
Site Repository



Tomah Public Library, 716 Superior Avenue, Tomah, WI

TOMAH FAIRGROUNDS WISCONSIN

EPA ID# WID980616841



EPA REGION 5

Monroe County
Tomah

Site Description

From 1953 to 1959, the 10-acre Tomah Fairgrounds site was operated by the City as an open, unlined dump, accepting both industrial and municipal wastes. During this period, the City had a similar operation 2 miles away, where the Tomah Armory now is located; that site also is listed on the NPL. Both Tomah sites accepted primarily municipal refuse. However, Union Camp Corporation notified the EPA that its polyethylene plant in Tomah had sent 23,770 gallons of solvents and heavy metals, including lead and chromium components, to the two sites. After the dump stopped operating, the City covered the area, which then became part of the Tomah Fairgrounds. Approximately 9,500 people draw drinking water from the public and private wells within 3 miles of the site. The closest residence is within 1/4 mile of the site, and approximately 4,100 people live within a 1-mile radius. The site is used as a fairgrounds; therefore, access is unrestricted. The nearest downslope water, Lake Tomah, is approximately 400 feet away from the site and is used for recreational purposes. Because the wastes were inadequately covered and there were no diversion structures, contaminated runoff could have reached nearby surface waters. A third site, the Tomah Municipal Sanitary Landfill, was listed on the NPL in March 1989.

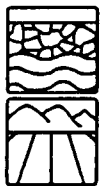
Site Responsibility: This site is being addressed through Federal and State actions.

NPL LISTING HISTORY

Proposed Date: 01/22/87

Final Date: 07/21/87

Threats and Contaminants



The groundwater, soil, and surface water are contaminated with volatile organic compounds (VOCs) and heavy metals including chromium and lead. The contaminated groundwater, soil, and surface water could be a health hazard to individuals if accidentally directly contacted or swallowed. In an inspection conducted in 1984, the EPA observed areas where erosion had worn away some of the soil; thus, people and animals potentially could come into direct contact with



hazardous substances.

Cleanup Approach

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

Response Action Status



Entire Site: As a pre-investigation activity, the State sampled private wells in the area for VOC contamination. An in-house RI began in 1993 to determine the nature and extent of the contamination. The results of the investigation will be used to evaluate various cleanup alternatives and to select final cleanup remedies.

Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Tomah Fairgrounds site while investigations are being planned.

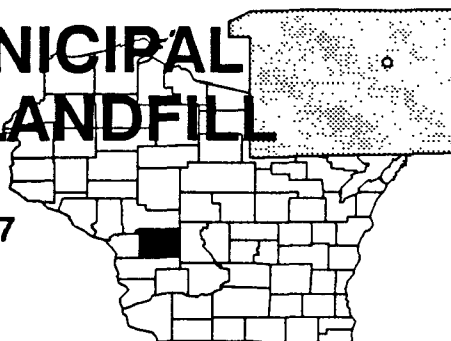
Site Repository



Tomah Public Library, 716 Superior Avenue, Tomah, WI

TOMAH MUNICIPAL SANITARY LANDFILL WISCONSIN

EPA ID# WID980610307



EPA REGION 5

Monroe County
Tomah

Site Description

The 40-acre Tomah Municipal Sanitary Landfill site was owned and operated by the City of Tomah from 1959 to 1979 and was licensed by the State to accept municipal wastes. In 1979, the site was covered with sand and planted with red pines. The landfill is unlined. One local facility, the Union Camp Corporation, notified the EPA that it had sent to the landfill approximately 1,514 drums of wastes containing barium, chromium, lead, spent solvents, ethyl acetate, and trichloroethylene (TCE). In 1984, the EPA inspected the site and sampled the groundwater and sediments in Deer Creek, which runs through the property 250 feet to the north of the filled area. On-site groundwater is contaminated with heavy metals and volatile organic compounds (VOCs). The City of Tomah has a population of approximately 7,300 people. Municipal wells serving Tomah are located within a 3-mile radius of the site. Approximately 2,000 people live within a 1-mile radius of the site and use private wells for drinking water supplies. In 1993, the City of Tomah hooked up the site's adjacent subdivision's private wells to municipal water. Two private wells on the southern side of the landfill have been found to be contaminated. Deer Creek is used by local residents as a trout stream. A freshwater wetland is located within 1,000 feet of the site.

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

NPL LISTING HISTORY

Proposed Date: 06/10/86

Final Date: 03/31/89

Threats and Contaminants



The groundwater is contaminated with VOCs and heavy metals including cadmium, chromium, and lead. The contaminated groundwater could pose a health threat to individuals if it is directly contacted or ingested. Also, contamination could enter the food chain through the fish in Deer Creek, which may be polluted.

Cleanup Approach

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

Response Action Status



Initial Actions: New wells were installed to replace two wells where contamination was found.



Entire Site: As a pre-investigation activity, the State plans to sample private wells in the area for VOC contamination. An investigation will begin in spring 1994, to determine the nature and extent of the contamination. The results of the investigation will be used to evaluate various cleanup alternatives and to select a final cleanup method.

Environmental Progress



Replacement of two contaminated wells has reduced the threat of exposure to contaminants at the Tomah Municipal Sanitary Landfill site while investigations leading to a final cleanup remedy are being planned.

Site Repository



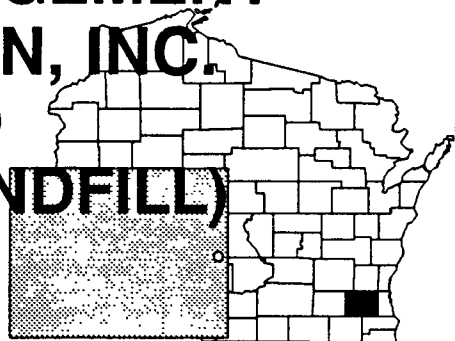
Tomah Public Library, 716 Superior Avenue, Tomah, WI

WASTE MANAGEMENT OF WISCONSIN, INC. (BROOKFIELD SANITARY LANDFILL)

WISCONSIN

EPA ID# WID980901235

REGION 5
Waukesha County
Brookfield



Site Description

Waste Management of Wisconsin operated a 20-acre sanitary landfill at this site from 1969 to 1981. Prior to 1969, the site had been a sand and gravel pit. In 1976, Waste Management received a permit from the Wisconsin Department of Natural Resources (WDNR) to accept municipal waste. According to EPA tests in 1985, the groundwater is contaminated with cyanide. Approximately 11,000 people obtain drinking water from public and private wells within 3 miles of the site; the nearest well is within 1,000 feet of the site. Poplar Creek, located 3,600 feet southwest of the site, is used for recreational activities. A freshwater wetland is located 1,800 feet from the site.

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

NPL LISTING HISTORY

Proposed Date: 06/24/88

Final Date: 08/30/90

Threats and Contaminants



The groundwater is contaminated with various volatile organic compounds (VOCs) including vinyl chloride, and cyanide from site landfilling operations. Potential health risks include coming in direct contact with or accidentally ingesting contaminated groundwater. The wetland also may be threatened.

Cleanup Approach

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

Response Action Status



Entire Site: An investigation into the nature and extent of contamination is scheduled to begin in late 1994. This investigation will be the basis for evaluating alternative cleanup remedies.

Environmental Progress



After adding this site to the NPL, the EPA performed preliminary investigations and determined that no immediate actions were required at the Waste Management of Wisconsin site at Brookfield while studies and cleanup activities are being planned.

Site Repository



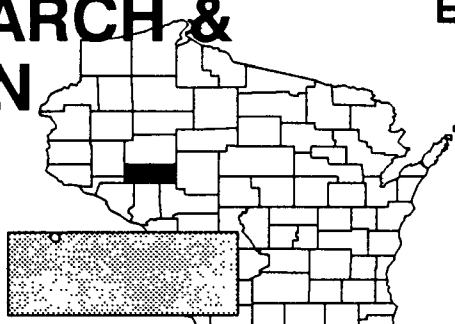
Not established.

WASTE RESEARCH & RECLAMATION COMPANY WISCONSIN

EPA ID# WID990829475

EPA REGION 5

Eau Claire County
Eau Claire



Site Description

The 9-acre Waste Research & Reclamation (WRR) site was occupied by a roofing company from the 1970s to 1981. WRR has occupied the site since 1981. WRR is primarily a reclamation and recycling business for hazardous liquid wastes, fuel blending, and transportation of hazardous waste for incineration or disposal. Waste materials handled include chlorinated and fluorinated solvents and flammables. Approximately 160 people live within a 1-mile radius of the site. The site is 1/2 mile east of Lowes Creek, a tributary of the Chippewa River. The closest residence is 1/4 mile from the site. A private well is located 1,500 feet from the site.

Site Responsibility:

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

NPL LISTING HISTORY

Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



The groundwater, soil, and surface water are contaminated with various volatile organic compounds (VOCs) from site waste handling procedures. People who accidentally ingest or come in direct contact with contaminated materials may be at risk.

Cleanup Approach

This site is being addressed in a long-term remedial phase focusing on cleanup of the entire site. The site has been deleted from the NPL and cleanup activities are being managed

under the authority of the Resource Conservation and Recovery Act (RCRA) program.

Response Action Status



Entire Site: The site has been divided into six solid waste management units for investigation and cleanup purposes: drum storage sheds; trailer parking, product warehouse, and abandoned drum storage area; pole barn cooling water discharge area and abandoned drum storage area; abandoned lagoon, existing holding tank, and existing collection sump for surface water runoff; a reclamation area, known as the LUWA area, located in the central and western portions of the site; and a reclamation area, known as the KONTRO area, located in the south-central portions of the site. The parties potentially responsible for site contamination currently are conducting an investigation into the nature and extent of groundwater, surface water, and soil contamination at the site. The investigation will define the contaminants and recommend alternatives for the final cleanup. Once the investigation is completed, the EPA and the State will select a remedy for site cleanup.

Site Facts: In 1983, the State signed a Consent Order with the potentially responsible parties to implement a long-term monitoring program.

Environmental Progress



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

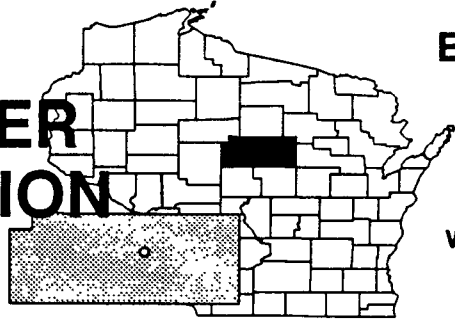
Site Repository



Not established.

WAUSAU GROUNDWATER CONTAMINATION WISCONSIN

EPA ID# WID980993521



EPA REGION 5

Marathon County
Wausau

Other Names:
Wausau Water Supply

Site Description

The City of Wausau provides drinking water for approximately 33,000 people from groundwater wells located on both sides of the Wisconsin River. In 1982, three of the wells were found to be contaminated with high levels of volatile organic compounds (VOCs). In 1984, an interim carbon filter system was installed on one off the affected wells until two air strippers could be constructed. The air strippers, installed at the municipal water facility in 1984, replaced the carbon filters as a long-term solution for providing acceptable drinking water to city residents. Approximately 32,000 people live within a 3-mile radius of the site. The Wisconsin River, which bisects the area, is used for commercial and recreational purposes.

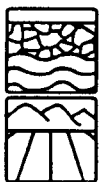
Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 04/10/85

Final Date: 06/10/86

Threats and Contaminants



The groundwater and soil are contaminated with various VOCs. Potential health risks include accidentally ingesting or coming in direct contact with contaminated groundwater or soil.

Cleanup Approach

This site is being addressed in three stages: immediate actions and two long-term remedial phases focusing on cleanup of the west side contamination plume and cleanup of the other contamination plumes.

Response Action Status



Immediate Actions: In 1984, the EPA installed temporary carbon filters to remove VOCs from the contaminated groundwater in one well. Air strippers subsequently were installed on two municipal wells.



West Side Contaminant Plume: In 1988, the EPA selected the following cleanup actions for this phase of the cleanup: groundwater pumping and treatment using air stripping, with discharge to the Wisconsin River; groundwater monitoring; and provision for implementation of an additional extraction well, as necessary. The treatment system has been operational since 1990.



Other Contamination Plumes: In 1989, the EPA selected the following remedies for two plumes: installation of soil vapor extraction systems to remove VOCs from soils at identified source areas; treatment of gases produced by the soil vapor extraction operation, using vapor phase carbon units that will be regenerated at an off-site facility; and pumping of the municipal supply wells to speed removal of the groundwater contaminant plumes affecting these wells. The design of the remedies was conducted by the potentially responsible parties. The SVE systems have been installed and are operating.

Site Facts: A Consent Decree was signed in 1990 with the parties potentially responsible for site contamination to finance a portion of past cleanup costs. The Consent Decree names the Wisconsin Department of Natural Resources as EPA's oversight contractor at the site.

Environmental Progress



The installation of a permanent groundwater treatment system for the drinking water supply affected by the westside contamination plume has reduced the potential of exposure to hazardous substances in the drinking water and will continue to protect residents near the Wausau Groundwater Contamination site.

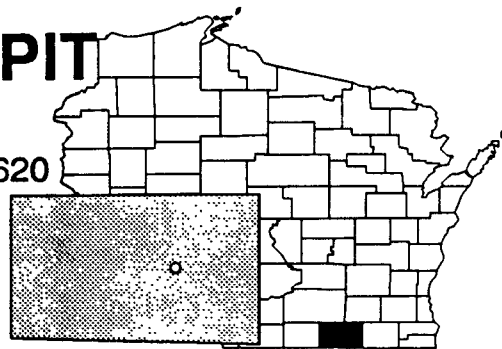
Site Repository



Marathon County Public Library, 400 First Street, Wausau, WI 54401

WHEELER PIT WISCONSIN

EPA ID# WID980610620



EPA REGION 5

Rock County

1 1/2 miles east of Janesville

Site Description

The 3 3/4-acre Wheeler Pit site, a former disposal area, lies within a 35-acre abandoned gravel pit. Wheeler Pit originally was mined for sand and gravel by the Chicago, Milwaukee, St. Paul, and Pacific Railroad Company. In 1956, General Motors Corporation (GMC) leased a 4-acre portion of the pit from the railroad for waste disposal. From 1960 to 1974, GMC used Wheeler Pit to dispose of paint and wastewater sludges from its Janesville auto assembly plant, as well as coal ashes from power plant boilers. The sludge and ash were contained by a dike at the pit. In 1971, a liquid was found seeping onto the ground from the GMC disposal area. Disposal at Wheeler Pit ended in 1974, and the site was covered at the request of La Prairie Township. From 1974 to 1988, the site was monitored intermittently for groundwater contamination. Elevated levels of the volatile organic compound (VOC) trichloroethylene (TCE), chromium, zinc, arsenic and barium were found in site groundwater samples collected in 1981 by GMC and the Wisconsin Department of Natural Resources (WDNR).

Approximately 51,000 people live within 3 miles of the site. The Rock River is approximately 2 miles west of the site. The City of Janesville operates five groundwater wells within 3 miles of the site. Three of the wells supply virtually all of the Janesville water supply. Five private wells are located within 1/4 mile of the site.

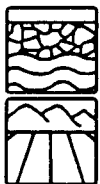
Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 09/08/83

Final Date: 09/21/84

Threats and Contaminants



Groundwater resources underlying the site were found to be contaminated with heavy metals including iron, manganese, chromium, and arsenic, as well as low levels of VOCs. Soils and surface wastes contain heavy metals such as cadmium and lead and semi-volatile organics. Potential health risks include accidental ingestion of or direct contact with contaminated groundwater, soils, or surface water.

Cleanup Approach

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

Response Action Status



Entire Site: A field investigation of the site has been completed to determine the nature and extent of contamination. Monitoring wells were installed and test pits were excavated. A remedy was chosen in late 1990, which entails construction of a multi-layer cap, installation of a fence around the site to restrict access, consolidation of waste and soil from a neighboring property into the original disposal area, long-term groundwater monitoring, institutional controls of groundwater and land use on the site, and natural attenuation of the contaminated groundwater. Future active responses to restore groundwater quality may be necessary if cleanup standards are not achieved within a reasonable period of time. The design of the landfill cap and groundwater monitoring system began in 1991. The design was completed in 1992, and the construction of the cap began soon after. Construction was completed in November 1992 and the operation and maintenance phase began in January 1993.

Environmental Progress



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

Site Repository



Janesville Public Library, 316 South Main Street, Janesville, WI 53545

GLOSSARY

Terms Used in the NPL Book

This glossary defines terms used throughout the NPL Volumes. The terms and abbreviations contained in this glossary apply specifically to work performed under the Superfund program in the context of hazardous waste management. These terms may have other meanings when used in a different context. A table of common toxic chemicals found at NPL sites, their sources, and their potential threats is located on page G-15

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

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

Administrative Order [Unilateral]: A legally binding document issued by the EPA, directing the parties potentially responsible to perform site cleanups or studies (generally, the EPA does not issue Unilateral Orders for site studies). This type of Order is not signed by the PRPs and does not require approval by a judge.

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

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

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

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

Applicable or Relevant and Appropriate Requirements (ARARs): Federal, State, or local laws which apply to Superfund activities at NPL sites. Both emergency and long-term actions must comply with these laws or provide sound reasons for allowing a waiver. ARARs must be identified for each site relative to the characteristics of the site, the substances found at the site, or the cleanup alternatives being considered for the site.

properties, which increase cleaning efficiency. However, these properties also cause chemical reactions that increase the hazard to human health and the environment.

Carbon Treatment: [see Carbon Adsorption].

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

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

Characterization: The sampling, monitoring, and analysis of a site to determine the extent and nature of toxic releases. Characterization provides the basis for acquiring the necessary technical information to develop, screen, analyze, and select appropriate cleanup techniques.

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

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

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

Closure: The process by which a landfill stops accepting wastes and is shut down under Federal

guidelines that ensure the protection of the public and the environment.

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

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

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

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

Confined Aquifer: An aquifer in which groundwater is confined under pressure that is significantly greater than atmospheric pressure.

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

Dioxin: An organic chemical by-product of pesticide manufacture which is known to be one of the most toxic man-made chemicals.

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

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

Ecological Assessment: A study of the impact of man-made or natural activity on living creatures and their 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.

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

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

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

assessment supplements an investigation of the site hazards.

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

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

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

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

Feasibility Study: The analysis of the potential cleanup alternatives for a site. The feasibility study usually starts as soon as the remedial investigation is underway. In this volume, the feasibility study is referred to as a site study [see also Remedial Investigation].

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

Hydrocarbons: Chemical compounds that consist entirely of hydrogen and carbon.

Hydrology: The properties, distribution, and circulation of water.

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

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

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

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

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

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

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

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

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

Interagency Agreement: A written agreement between the EPA and a Federal agency that has the lead for site cleanup activities, setting forth the roles and responsibilities of the agencies for performing and overseeing the activities. States often are parties to interagency agreements.

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

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

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

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

Leach, Leaching [v.t.]: The process by which soluble chemical components are dissolved and carried through soil by water or some other percolating liquid.

The 60-day period may be extended if the EPA receives a good faith offer from the PRPs within that period. [See also Good Faith Offer].

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

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

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

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

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

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

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

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

Pesticide: A substance or mixture of substances intended to prevent, destroy, or repel any pest. If misused, pesticides can accumulate in the foodchain and contaminate the environment.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Remedy Selection: The selection of the final cleanup strategy for the site. At the few sites where the EPA has determined that initial response actions have eliminated site contamination, or that any remaining con-

tamination will be naturally dispersed without further cleanup activities, a "No Action" remedy is selected [see Record of Decision].

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

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

Resource Conservation and Recovery Act (RCRA): A Federal law that established a regulatory system to track hazardous substances from the time of generation to disposal. The law requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous substances. RCRA is designed to prevent new, uncontrolled hazardous waste sites.

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

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

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

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

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

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

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

Special Notice Letter: [See Notice Letter].

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

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

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

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

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

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

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

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

Trichloroethylene (TCE): A stable, colorless liquid with a low boiling point. TCE has many industrial applications, including use as a solvent and as a metal degreasing agent. TCE may be toxic to people when inhaled, ingested, or through skin contact and can damage vital organs, especially the liver [see Volatile Organic Compounds].

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

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

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

Some Common Contaminants at NPL Sites

Contaminant Category	Example Chemical Types	Sources	Potential Health Threats*
Heavy Metals	Arsenic, Barium, Beryllium, Cadmium, Cobalt, Copper, Chromium, Lead, Manganese, Mercury, Nickel, Silver, Selenium, Zinc	Electroplating, batteries, paint pigments, photography, smelting, thermometers, fluorescent lights, solvent recovery	Tumors, cancers, and kidney, brain, neurological, bone and liver damage
Volatile Organic Compounds (VOCs)	Trichloroethylene (TCE), Perchloroethylene (PCE), Acetone, Benzene, Ketone, Methyl chloride, Toluene, Vinyl Chloride, Dichloroethylene	Solvents and degreasers, gasoline octane enhancers, oils and paints, dry cleaning fluids, chemical manufacturing.	Cancers, kidney and liver damage, impairment of the nervous system resulting in sleepiness and headaches, leukemia
Pesticides/Herbicides	Chlordane, DDT 4-4, DDE, Heptachlor, Aldrin, Endrin, Atrazine, Dieldrin, Toxaphene	Agricultural applications, pesticide and herbicide production	Various effects ranging from nausea to nervous disorders. Dioxin is a common by-product of the manufacture of pesticides and is both highly toxic and a suspected carcinogen.
Polychlorinated biphenyls (PCBs)	—	Electric transformers and capacitors, insulators and coolants, adhesives, caulking compounds, carbonless copy paper, hydraulic fluids.	Cancer and liver damage.
Creosotes	Polyaromatic hydrocarbons (PAHs), Polynuclear aromatics (PNAs), Phenolic Tars, Pentachlorophenol (PCP)	Wood preserving, fossil fuel combustion	Cancers and skin ulcerations with prolonged exposure
Radiation (Radionuclides)	Radium-226, Radon, Uranium-235, Uranium-238	Mine tailings, radium products, natural decay of granites	Cancer

Sources: *Toxic Chemicals—What They Are, How They Affect You (EPA, Region 5)*
Glossary of Environmental Terms (EPA, 1988)

*The potential for risk due to these contaminants is linked to a number of factors; for example, the length and level of exposure and environmental and health factors such as age.