United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Illinois Indiana
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March 1990

U.S. EPA Completes Study of Contamination at the Oconomowoc Electroplating Company Superfund Site

This Fact Sheet Describes:

- The results of a comprehensive investigation of contamination at the Oconomowoc Electroplating Company Superfund Site;
- The next steps in addressing contamination problems at the Oconomowoc site; and
- How to get additional information on site-related activities.

Public Meeting:

Ashippun residents are encouraged to attend a public meeting to learn more about the Remedial Investigation conducted at the Oconomowoc site. The meeting will be held at:

Date & Time:
March 28, 1990 at 7 p.m.

Location:
Ashippun Town Headquarters
Highway 67
Ashippun, Wisconsin

Introduction

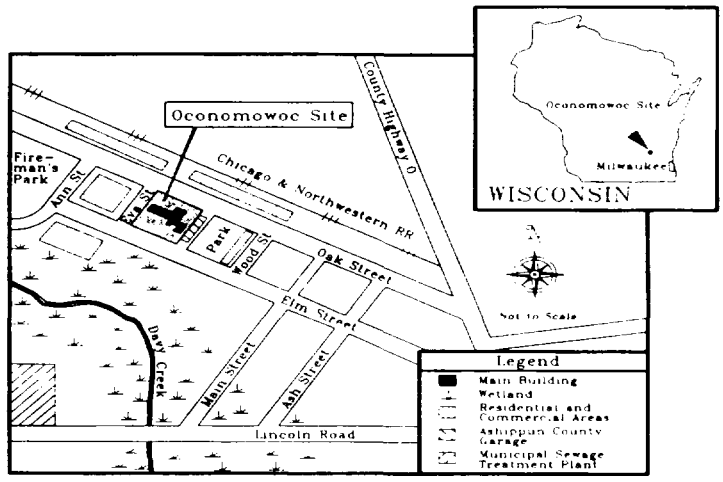

Figure 1: Site Location Map

In December 1989, the United States Environmental Protection Agency (U.S. EPA), in conjunction with the Wisconsin Department of Natural Resources (WDNR), completed a comprehensive study of contamination at the Oconomowoc Electroplating Company **Superfund** site (Oconomowoc site) in the Town of Ashippun, Dodge County, Wisconsin. This study, known as a **Remedial Investigation**, was conducted as part of the federal Superfund program which provides for the investigation and cleanup of hazardous substances at sites throughout the United States.

The Remedial Investigation was conducted to determine the nature and extent of contamination at the Oconomowoc site and the potential effects any contamination may have on public health or the environment. The Remedial Investigation found that **ground water** underneath the site and site soil are contaminated with a number of **organic** and **inorganic compounds** used in electroplating and degreasing operations. However, according to U.S. EPA, the ground water in residential wells near the site is not contaminated and does not pose a health risk. Although contaminated ground water is not an immediate threat to the community water supply, U.S. EPA is concerned about the possible future movement of the ground water. In addition, U.S. EPA found that under conditions of prolonged exposure, contaminated soil in the southeast corner of the site could pose a public health risk. In response to these concerns, U.S. EPA is in the process of conducting a **Feasibility Study** to develop cleanup methods for addressing site-related contamination problems (see "The Feasibility Study" on page 8).

This fact sheet summarizes the activities conducted during the course of U.S. EPA's Remedial Investigation and U.S. EPA's analysis of the sampling data collected. In addition, this fact sheet provides a description of the Feasibility Study currently underway. The complete Remedial Investigation Report is available for review at the site's information repository located at the F & M Bank in Ashippun (see "Available Information" on back page).

Words first appearing in **bold print** are defined in the glossary on page 9.

Site Background

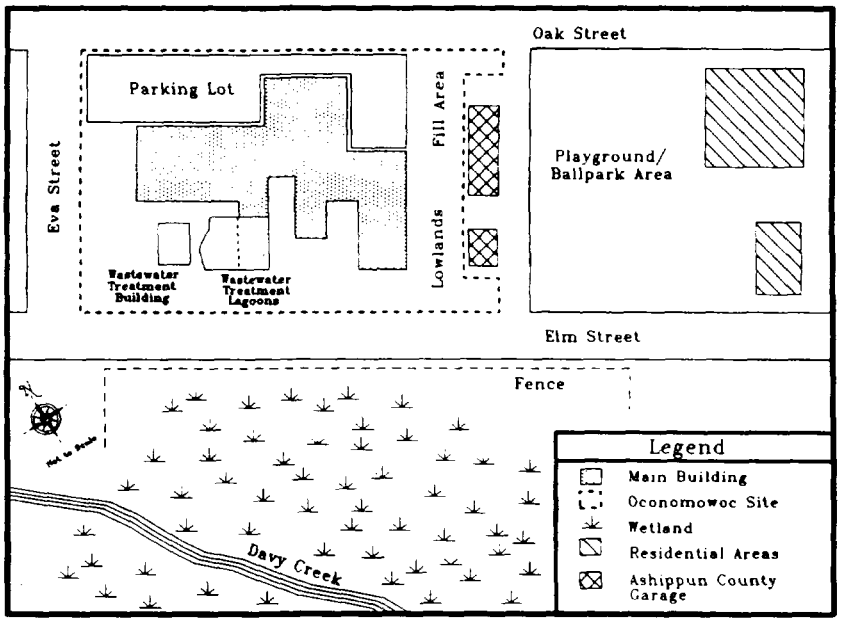

Figure 2: Oconomowoc Site Detail Map

The Oconomowoc site lies on five acres of land at 2572 West Oak Street, Town of Ashippun, Dodge County, Wisconsin (see Figure 1 on page 1). The site consists of a main building which houses the Oconomowoc Electroplating Company Inc. offices and electroplating equipment, a wastewater treatment building, parking lot areas, and two wastewater treatment lagoons (see Figure 2). The site is approximately eight miles north of the City of Oconomowoc, 10 miles east of the City of Watertown, and 35 miles northwest of Milwaukee. The Davy Creek **wetlands** lie to the southeast of the site and Davy Creek runs approximately 500 feet south of the site. **Surface water** and ground water from the site flow south toward the Davy Creek wetlands.

The Oconomowoc site, owned by Oconomowoc Electroplating Company Inc., is an active electroplating facility which has been in operation since 1957. The electroplating processes conducted at the site involve plating and finishing metal products using **nickel**, **cadmium**, and other **metals**. In conjunction with electroplating processes, degreasing operations are also performed at the site. Electroplating and degreasing operations have produced waste waters containing **cyanide**, **chromium**, **acid**, and a number of **volatile organic compounds**. In the early 1980s, Oconomowoc Electroplating Company Inc. stopped using tin, **copper**, chromium, nickel, cadmium, and cyanide in electroplating operations at the site.

In 1983, at the request of WDNR, U.S. EPA conducted an initial investigation of contamination at the Oconomowoc site. Following this investigation, the site was placed on the National Priorities List, a federal roster of hazardous waste sites eligible for investigation and cleanup under the Superfund program. Between 1983 and 1987, U.S. EPA and WDNR conducted several sampling studies in the area of the site. These studies revealed dead vegetation on the site, contaminated **sludge** leaking from electroplating waste containers, and high concentrations of metals and cyanide in the wetlands south of the site.

The Remedial Investigation:
Evaluating the Problem

Activities Conducted During the Remedial Investigation

In 1988, U.S. EPA began a Remedial Investigation at the Oconomowoc site to determine the nature and extent of site-related contamination and evaluate the potential effects any contamination may have on human health and the environment.

To identify areas of contamination and to determine whether drums were buried at the site, U.S. EPA performed ground, aerial, **soil gas**, **X-ray fluorescent**, and **geophysical surveys** of the site. Following these surveys, U.S. EPA collected samples of surface soil, subsurface soil, ground water, lagoon sludge, lagoon liquid, and drummed water from the site and surrounding areas. U.S. EPA also collected samples from locations near the site which were not affected by site-related contamination to provide a basis for comparing contamination concentrations found at the site. Using the results of the surveys and sampling activities, U.S. EPA conducted a **Public Health/Environmental Risk Assessment** to determine if contamination from the site posed a risk to human health or the environment.

The following sections provide a more detailed description of the activities conducted during the Remedial Investigation. Figures 3 and 4 show the locations on and in the area of the site where samples were taken. More information on the activities conducted during the Remedial Investigation can be found in the Remedial Investigation Report (see "Available Information" on back page).

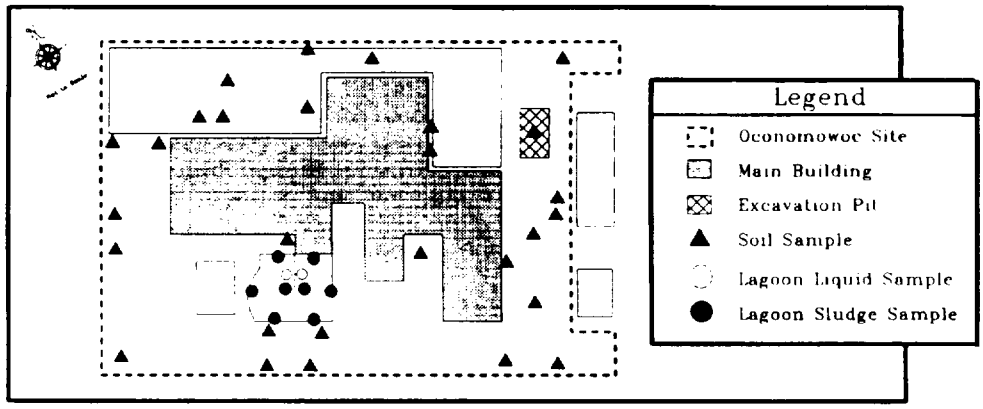

Figure 3: Site Soil and Lagoon Sampling Locations

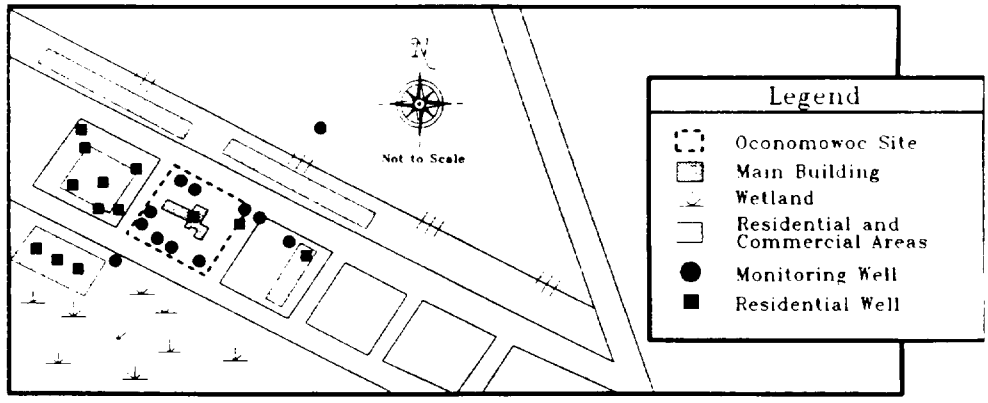

Figure 4: Ground-water Sampling Locations

Activities Conducted (cont.)

Site Surveys

Prior to initiating sampling activities, U.S. EPA conducted a number of surveys at the site. In October 1988, a ground and aerial survey was conducted to develop a map showing the physical features of the site and the surface-water drainage pathways. U.S. EPA also conducted geophysical, soil gas, and X-ray fluorescent surveys at the site. The geophysical survey used electromagnetic equipment which indicates the location of metal objects to determine whether drums were buried at the site. The soil gas survey, which involved the collection of 105 samples, was performed to roughly identify the areas of contamination at the site. The X-ray fluorescent survey was conducted to determine the presence of metals at the site.

Soil Sampling

To determine the nature and extent of soil contamination at the site, U.S. EPA collected surface and subsurface soil samples in December 1988. Samples were collected in areas of previous chemical spills, lagoon overflows, and suspected drum burials. A total of 61 soil samples were collected at intervals between the ground surface and the water table, which begins at approximately five feet below the ground (see Figure 3). To characterize the vertical extent of the soil contamination at the site, an additional 21 samples were collected from below the water table.

Ground-water Investigation

U.S. EPA conducted a ground-water investigation to determine the nature of ground-water contamination and the potential for ground water to move off the site. Ground water was analyzed for organic and inorganic contamination. In addition, ground-water temperature, level, and pressure were tested to determine the direction of ground-water flow and the characteristics of the **aquifers** beneath the site.

To determine if drinking-water quality has been affected by site-related contamination, U.S. EPA collected 31 samples from 13 residential wells located along Oak, Eva, and Elm Streets (see Figure 4). In November 1988, U.S. EPA also installed 12 **monitoring wells** on and in the vicinity of the site, and collected 26 ground-water samples (see Figure 4). Monitoring and residential wells were sampled in December 1988 and between February and March 1989.

Investigation of Potential Sources of Contamination

U.S. EPA conducted an investigation of two areas of the site —the fill area and the waste-water treatment lagoons—which were suspected as being sources of continued ground-water and soil contamination. To determine whether drums were buried in the fill area, U.S. EPA excavated a four-foot deep, 45-foot long, pit in November 1988 (see Figure 3). Buried drums were not found in the excavated area and the pit was refilled with soil. In May 1989, U.S. EPA collected nine sludge samples and three lagoon liquid samples from the two waste-water treatment lagoons to determine the best method for disposing of the sludge and lagoon liquid (see Figure 3).

Public Health/Environmental Risk Assessment

As part of the Remedial Investigation, U.S. EPA conducted a Public Health/Environmental Risk Assessment in November 1989 to determine whether contamination from the site could, at present or in the future, pose a risk to human health and the environment. Contamination concentrations found at the site were compared to federal, state, and local environmental and health standards which define limits or ranges of acceptable exposure for particular chemicals. In the Public Health/Environmental Risk Assessment, U.S. EPA used extremely conservative levels of acceptable risk and stringent cleanup standards to ensure that the final cleanup program will be protective of public health.

Remedial Investigation Report

At the conclusion of the Remedial Investigation, U.S. EPA compiled and analyzed all data collected during the Remedial Investigation and prepared a report describing the investigation and U.S. EPA's conclusions regarding site-related contamination problems. This report was finalized in March 1990 and is available for review at the site's information repository (see "Available Information" on back page).

The Results of the Remedial Investigation

The following sections present the results of the Remedial Investigation sampling activities and Public Health/ Environmental Risk Assessment. According to the Remedial Investigation, ground water and soil at the site are contaminated with a number of organic and inorganic compounds which were used in electroplating and degreasing operations. During the Public Health/Environmental Risk Assessment, U.S. EPA examined eight situations in which people could come into contact with contaminants, either at the present time or in the future, and evaluated the health risks associated with each of these situations. The results of the Public Health/Environmental Risk Assessment show that under particular and extreme conditions, soil in the fill area and lowlands area on the southeast corner of the site could pose a public health risk. In addition, although residential wells show no ground-water contamination at levels exceeding health standards, U.S. EPA is concerned that the possible future movement of contaminated ground water could threaten public health. The situations of potential exposure to contamination and associated health risks are presented in Table 1 on page 7.

Is Ground Water Contaminated?

A number of organic contaminants such as **trichloroethene** are present at levels exceeding Federal Drinking Water Standards and Wisconsin Ground-water Quality Standards in ground-water samples collected from monitoring wells at the site. Most of the contaminants are found in ground-water samples from three shallow monitoring wells on the southern edge of the site and along Elm Street. Inorganic contaminants, including cadmium and cyanide, are only present in one shallow monitoring well southwest of the waste-water treatment lagoons.

Several possible sources may be contributing to the contamination of the ground water, which lies less than 10 feet below the ground surface at the site. Among these sources are the waste-water treatment lagoons, the heavily contaminated soil in the southeast corner of the site (see below), and the surface soil in the drainage ditches located west and south of the main building. U.S. EPA is also concerned that contaminants have leaked through cracks in the foundation and floor drains in the main building.

Are the Waste-water Treatment Lagoons Contaminated?

Sludge samples collected from the waste-water treatment lagoons are contaminated with 12 volatile organic compounds. **Acetone**, which may result from degreasing operations at the site, is present in high concentrations in many of the samples. A number of inorganic compounds such as lead, cadmium, chromium, and cyanide, are also found at very high concentrations in samples from both of the lagoons. Lagoon liquid samples show no inorganic compounds but high concentrations of organics such as acetone and **methylene chloride**.

Is Site Soil Contaminated?

Soil between the ground surface and five feet deep across almost all of the site contains inorganic compounds such as cadmium, chromium, copper, nickel, and **lead**. Certain areas of the site property, including the eastern corner of the waste-water treatment lagoons, sections around the main building, and the southeast corner of the site, show high concentrations of these contaminants. Trichloroethene, an organic compound, is also found in soil samples from the southeast corner of the site. Most of the contaminants detected are within one foot of the ground surface and no contamination is present in soil samples from depths below five feet.

Soil contamination at the site is believed to result from the improper storage of waste-water treatment sludge and **leaching** from the waste-water treatment lagoons. Contaminated soil could continue to contaminate ground water as surface water or rain water flow through the soil and enters the ground-water flow.

Are the Davy Creek Wetlands Contaminated?

A document entitled"Extent of Contamination Report" completed by U.S. EPA in 1988 concluded that a part of the Davy Creek wetlands is contaminated with cyanide and a variety of metals including cadmium, chromium, and copper. As part of the Feasibility Study currently underway at the site, U.S. EPA will develop methods for treating site-related contamination in the Davy Creek wetlands.

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Are Residential Wells Contaminated and Can Contamination Enter the Drinking-water Supply?

All residences and businesses within a three-mile radius of the site receive water from private wells and there are no water supply intakes from Davy Creek or Rock River within this area. Sampling of residential well water in the area of the site shows no organic contamination and no inorganic contamination at levels exceeding health standards. Nickel, an inorganic compound, is present at very low levels in samples from a number of residential wells. Two wells located west of the site show the highest concentration of this contaminant.

According to U.S. EPA, it is likely that residential wells will remain unaffected by the ground-water contamination because contaminated ground water at the site is confined to a shallow aquifer that lies between approximately 10 and 70 feet below the ground, while most residential wells draw water from a deeper aquifer. Although site-related contaminated ground water poses no immediate risks to public health, U.S. EPA is concerned that contaminated ground water could move in the future from the shallow aquifer to the deeper aquifer; however, U.S. EPA believes that it is unlikely that contaminated ground water will enter the deeper aquifer; however, in response to this potential threat, U.S. EPA will develop methods to reduce the sources of ground-water contamination, believed to be the waste-water treatment lagoons, and control the movement of contaminated ground water (see "The Feasibility Study" on page 8).

Can People Come into Contact with Contaminated Areas of the Site?

The results of the Public Health/Environmental Risk Assessment show that contact with skin, inhalation, or ingestion of soil in the parking lot on the northern border of the site, the playground/ballpark southeast of the site, and the lagoon area, do not pose a threat to public health. According to U.S. EPA, soil contamination is limited to the site itself, and the ingestion of vegetables grown in the area of the site does not pose a health risk.

U.S. EPA finds, however, that skin contact or incidental ingestion of soil from the fill and lowlands areas in the southeast corner of the site, which is contaminated with cadmium, lead, and other chemicals, may pose a potential health risk to children if they continually play in these areas or to workers involved in soil excavations. This soil only poses a potential risk under conditions of direct and prolonged exposure to these areas of the site. As part of the Feasibility Study, U.S. EPA will develop cleanup methods to treat, remove, or reduce human contact with contaminated soil (see "The Feasibility Study" on page 8).

Table 1: Situations of Potential Exposure to Contamination Examined in the Remedial Investigation

Contaminated Medium	Time Period	Exposure Point	Exposed Population	Route of Exposure	Health Risk Associated with Exposure
Soil	Current and future use	Lagoon area	Electroplating company workers	Inhalation of contaminated soil	Poses no health risk
Soil	Current and future use	Parking lot on northern corner of site	Children and electroplating company workers	Inhalation of contaminated soil	Poses no health risk
Soil	Current and future use	Playground/ ballpark southeast of site	Children	Contact with skin, ingestion, or inhalation of contaminated soil	Poses no health risk
Soil	Current and future use	Unfenced southeast corner of site	Children	Contact with skin, incidental ingestion, or inhalation of contaminated soil	May pose a health risk under extreme conditions
Soil	Current and future use	Soil near site	Residents	Ingestion of garden vegetables grown in soil near the site	Poses no health risk
Soil	Future use	Unfenced southeast corner of site during future excavation or construction	Construction workers	Contact with skin, incidental ingestion, or inhalation of contaminated soil	May pose a health risk under extreme conditions
Lagoon Sludge	Current and future use	Site and surrounding area	Electroplating company workers and local residents	Inhalation of contaminated dust during dry weather	Poses no health risk
Ground Water	Future use	Residential wells near the site	Local residents	Ingestion of contaminated water	May pose a health risk in the future under certain conditions

The Feasibility Study:
Developing Cleanup Alternatives

Concurrent with the Remedial Investigation, U.S. EPA began a Feasibility Study to develop and evaluate cleanup alternatives, known as remedial alternatives, for addressing the contamination problems found at the site. Based on the results of the Remedial Investigation and Public Health/Environmental Risk Assessment, U.S. EPA identified the following cleanup objectives for the Feasibility Study:

- Protect human health from any future risks posed by possible contact with skin or incidental ingestion of contaminated surface soils;
- Control the sources of ground-water contamination and protect human health from any risks posed by potential movement of contaminated surface or ground water; and
- Comply with all state and federal environmental and health-based regulations.

U.S. EPA has begun the process of identifying and screening several cleanup technologies for addressing site-related contamination. The following cleanup technologies are being considered and evaluated for the Oconomowoc site:

No Action

No Action: The no-action alternative means no activities will be conducted to remove or treat the sources of site-related contamination. U.S. EPA policy requires consideration of a no-action alternative at all Superfund sites to serve as a basis of comparison for other remedial alternatives.

Diversion Technologies

Grading: Grading means altering the land surface by leveling or changing its slope. Grading is done to improve surface-water drainage or prevent surface water from running onto the site and becoming contaminated.

Dikes/Berms: Dikes and berms are small walls made of compacted soil along the edge of a site. Dikes and berms intercept and divert the flow of surface water and can be used to control soil erosion or prevent surface water from flowing onto a site.

Collection Technology

Sedimentation Basins: A sediment basin can be a pond or other depression in the ground where water is left to sit to allow time for particles to settle.

Containment Technologies

Capping: Capping is used to reduce the potential for human exposure to contaminants and prevent rain water from becoming contaminated as it seeps through contaminated soil or landfill wastes and enters the ground water. Caps are often made of multiple layers of materials including soil, clay, and synthetic water-tight liners.

Dust Controls: Contaminated dust may be lifted from the ground by wind or construction activities. Dust can be controlled by a number of different methods including water or special foam sprays.

Cont. ➡

The Feasibility Study:
Developing Cleanup Alternatives (Cont.)

Ground-water Removal and Treatment Technologies

Ground-water Pumping: Ground-water pumping involves constructing extraction wells to pump water from the ground to a ground-water treatment facility. Pumping can be used to contain the movement of contaminated ground water or extract ground water for treatment and disposal.

Activated Carbon: Activated carbon treatment, a widely-used technology for removing organic contamination, involves passing contaminated ground water through a chamber that is packed with carbon granular particles. Activated carbon removes organic contaminants which chemically bind to the carbon.

Metal Precipitation: Metal precipitation is a multi-step process to remove metal contaminants dissolved in water. Special chemicals are added to the water to change the metal contaminants into a solid material by altering the chemistry of the water. The metals can then be filtered out of the water.

Ion Exchange: Ion exchange is a process in which contaminated ground water is passed through a special granular and porous layer of material which alters the chemical makeup of the contaminants.

Soil, Sediment, and Sludge Removal and Treatment Technologies

Stabilization: Stabilization involves binding wastes into a solid mass using a cement-like substance. Stabilization can be used to treat solids, liquids, or sludges.

Excavation and Removal: Soil, **sediment**, and sludge can be excavated, loaded onto trucks, and treated on the site or hauled off the site to a treatment facility which operates according to federal or state regulations.

Off-site Disposal: Contaminated soil and sludge could be disposed of off site in a federally-approved landfill which is operated under strict environmental regulations.

On-site Disposal: If contaminated soil and sludge are treated on site by a process such as stabilization, they can be returned to their original locations.

During the Feasibility Study, U.S. EPA will finalize its selection of the most appropriate alternative cleanup methods and then evaluate these alternatives using seven criteria which rate health and environmental protection, cost, and engineering feasibility. U.S. EPA expects that the Feasibility Study will be completed by July 1990. Following the completion of the Feasibility Study, U.S. EPA will issue a **Proposed Plan**, which outlines U.S. EPA's preferred alternative for addressing site-related contamination. The public will have an opportunity to comment on the Proposed Plan and other cleanup alternatives during a public comment period. The Proposed Plan will then be further evaluated by U.S. EPA based on state and community acceptance. Following this evaluation, U.S. EPA will sign a **Record of Decision** which details the cleanup method chosen for the site and includes U.S. EPA's responses to public comments. Specific plans for implementing the cleanup will then be developed.

Tom Williams Named New Project Manager

In December 1989, U.S. EPA appointed Tom Williams as Remedial Project Manager for the Oconomowoc site and other Superfund sites in Michigan and Wisconsin. Mr. Williams holds a degree in civil engineering from the University of Illinois-Champaign. Mr. Williams' previous experience includes four years with the U.S. Army Corps of Engineers which included extensive Superfund site work, two years with the U.S. Navy, and four years with U.S. EPA from 1978 to 1982.

Mr Williams took over responsibility for the Oconomowoc site from Gene Wong who has taken a position in a private consulting firm.

Glossary

Acetone
Acetone is a colorless, extremely flammable liquid used as a solvent in the production of lubricating oils and in various pharmaceuticals and pesticides. Inhalation of acetone can cause headaches, fatigue, and bronchial irritation.

Acid
Acids are a class of hydrogen-containing compounds. Acids can be either weak (e.g., vinegar) or strong (e.g., hydrochloric acid), depending on the concentration of hydrogen relative to other chemical molecules in the solution.

Aquifer
A layer of rock or soil below the surface of the earth where water collects. Aquifers are capable of collecting, storing, transmitting, and yielding water to wells and are often a source of drinking water.

Cadmium
Cadmium is a bluish-white metal used in electroplating, batteries, fire protection systems, and power transmission wire. Inhalation of cadmium over long periods of time has been associated with kidney problems, high blood pressure, anemia, and lung, kidney, and prostate cancers.

Chromium
Chromium is a metal used in electroplating, photography, and the production of paint pigments. Chromium exists in two forms: trivalent and hexavalent. Trivalent chromium is found naturally in the environment and is relatively harmless. Hexavalent chromium is a man-made material that can cause lung and other respiratory cancers, ulcers, and dermatitis with prolonged contact.

Copper
Copper is a commonly found metal with a distinctive reddish brown color. Copper is used in electrical wiring, plumbing, heating, electroplating, and cooking utensils. A small amount of copper is important and necessary for human health.

Cyanide
A group of inorganic compounds used to produce metal products and pharmaceutical compounds. Exposure to high levels of cyanide can prevent the flow of oxygen to body tissues and produce harmful effects on the liver, kidneys, skin, and central nervous system. Long-term exposure to cyanide has been associated with abdominal pains, muscular weakness, and shortness of breath.

Feasibility Study
The second half of a two-part study called a Remedial Investigation/Feasibility Study. The Feasibility Study identifies and evaluates cleanup alternatives that are designed to address contamination problems found during a Remedial Investigation at a Superfund site (see definition of Remedial Investigation below).

Geophysical Survey
A study of existing surface and subsurface geographic features using electromagnetic field equipment. A geophysical survey may involve the use of a device that operates much like a recreational metal detector and is able to measure electric currents created by metal in the soil. The electromagnetic field equipment is used to identify irregularities in the earth which may indicate the location of buried metallic materials such as drums.

Ground Water
Ground water is water that fills the spaces between soil, rock, sand, and gravel particles beneath the earth's surface. Rain that does not immediately flow into streams and rivers slowly penetrates through the soil to the point of saturation to form ground-water reservoirs or aquifers which can be used for drinking water. Ground water flows at a very slow rate, often along routes leading to streams, ponds, rivers, or lakes.

Inorganic Compounds
One of two classes of chemical compounds, inorganic and organic. Inorganic compounds are distinct from organic compounds because they do not contain carbon. Water, table salt, oxygen, and ammonia are examples of inorganic compounds. Inorganic compounds found at the site include cyanide, chromium, copper, and lead.

Leaching
The process by which soluble materials are dissolved and carried down through soil by a fluid such as water. Leaching may result in hazardous substances entering the ground water as rain water trickles through contaminated soil.

Lead
Lead is a metal used in solder, foil, construction equipment, and as a gasoline additive. The use of lead in gasoline and paint has been sharply restricted or eliminated by federal regulations. Exposure to low levels of lead over long periods of time can lead to brain, bone, and neurological damage. Lead has also been linked to learning disabilities in children.

Metals
Metals are a class of inorganic chemical elements characterized by their luster and ability to transmit heat and electricity. Iron, nickel, cadmium, copper, and aluminum are examples of metals. Exposure to some metals such as chromium, can produce a toxic effect while other metals, such as zinc, are essential human nutrients.

Methylene Chloride
Methylene Chloride is an organic, colorless liquid used as a solvent and in non-flammable paint removal mixtures. Methylene Chloride is potentially toxic if ingested or inhaled.

Monitoring Wells
Special wells drilled at specific locations to sample ground water from various depths. Samples from monitoring wells are analyzed to determine ground-water movement, and the nature and level of ground-water contamination.

Nickel
Nickel is a metal used in electroplating, electronic circuits, and coins. Nickel can enter the body through inhalation, ingestion, or absorption through the skin. Nickel is flammable and toxic as a dust or fume.

Organic Compounds
One of two classes of chemical compounds. Organic compounds are distinguished from inorganic compounds because they contain carbon. Examples of substances which contain organic compounds are petroleum, solvents, and pesticides. Organic compounds found at the site include methylene chloride and acetone.

Glossary (Cont.)

Proposed Plan
The Proposed Plan is a document presenting U.S. EPA's preliminary recommendations to the local community on the best method for addressing contamination problems associated with a Superfund site. The Proposed Plan is intended to solicit public review and comment on all of the cleanup alternatives under consideration.

Public Health/Environmental Risk Assessment
A site-specific study performed by U.S. EPA to determine the actual or potential dangers to human health and the environment from releases of hazardous substances at a site under its current and conceivable future uses.

Record of Decision
A public document prepared by U.S. EPA that explains which cleanup alternative will be implemented at a Superfund site. The Record of Decision includes U.S. EPA's responses to public comments on the Feasibility Study and Proposed Plan.

Remedial Investigation
The first part of a two-part study called a Remedial Investigation/ Feasibility Study. In a Remedial Investigation, information is collected and analyzed to define the nature and extent of contamination at a Superfund site.

Sediment
Materials such as sand, soil, mud, and decomposing animals and plants that settle to the bottom of ditches, streams, lakes, rivers, and ponds.

Sludge
A generic term that describes a highly concentrated solid/liquid by-product. Sludge is formed from solid materials settling out of waste water during waste-water treatment processes.

Soil Gas Survey
A method for determining the nature of gas in the soil near the ground surface. This method can help U.S. EPA identify groundwater contamination because volatile chemicals in the ground water may evaporate and be present in the soil gas.

Superfund
The term commonly used to refer to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) o 1980, as amended by the United States Congress in 1986. The Superfund, which is administered by U.S. EPA, provides for the investigation and clean up of hazardous waste sites when the parties responsible for the problem are unable or unwilling to do so.

Surface Water
Streams, lakes, ponds, rivers, or any other body of water above the ground.

Trichloroethene (TCE)
An organic compound primarily used as a solvent for oils, waxes and fats. Short-term exposure to high concentrations of TCE can irritate the eyes and mucous membranes, and can produce narcotic effects. Long-term exposure to this compound may cause cancer.

Volatile Organic Compounds (VOCs)
Volatile organic compounds are organic compounds that easily vaporize. Many industrial solvents contain VOCs, and many VOCs are toxic.

Wetlands
Areas of land which are regularly saturated with water. Wetlands are a unique natural resource that provide irreplaceable habitats for many plants and animals. Wetlands, like rivers and lakes, are protected under the Clean Water Act. U.S. EPA and the U.S. Army Corps of Engineers hold joint responsibility for regulating wetlands.

X-ray Fluorescent Survey
An X-ray fluorescent survey is a preliminary ground surveying method using X-ray technology. X-ray fluorescent surveys are conducted to determine the presence of metals in areas of potential contamination.

Mailing List Additions

If you did not receive this fact sheet by mail and would like to be placed on U.S. EPA's mailing list for the Oconomowoc site, please fill out this form and return it to:

Susan Pastor 5PA-14
Community Relations Coordinator
Office of Public Affairs
U.S. EPA - Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Name: _____

Address: _____

_____

Telephone: _____

Affiliation: _____

Available Information

Anyone desiring additional information about the Superfund process or the activities conducted by U.S. EPA at the Oconomowoc site is encouraged to review the various documents that have been prepared for the site. Copies of documents including the applicable laws, Remedial Investigation Work Plan, Remedial Investigation Report, and other site-related documents are available at the following information repository:

F & M Bank
N533 Highway 67
P.O. Box 365
Ashippun, WI
(414) 474-4416

Hours:
Monday to Thursday: 8 A.M.- 4 P.M.
Friday: 8 A.M.- 6 P.M.
Saturday: 8:30 A.M.-11:30 A.M.
Sunday: Closed

For further information on the Oconomowoc site, please contact:

Susan Pastor 5PA-14
Community Relations Coordinator
(312) 353-1325

Tom Williams 5HS-11
Remedial Project Manager
(312) 886-6157

U.S. EPA - Region 5
230 South Dearborn Street
Chicago, Illinois 60604
Toll free number: 1-800-621-8431
(9:00 A.M. to 4:30 P.M. Central Time)

Ceila Vanderloop
State Project Manager
Superfund Unit
Wisconsin Department of Natural Resources
(608) 266-3308

Public Meeting

U.S. EPA representatives will be visiting the Ashippun area to hold a public meeting. Ashippun residents are encouraged to attend the public meeting to learn more about the Remedial Investigation conducted at the Oconomowoc site and the Superfund process. The meeting will be held at 7:00 P.M. on March 28, 1990 at the Ashippun Town Headquarters on Highway 67 in Ashippun, Wisconsin.

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Office of Public Affairs
230 South Dearborn Street
Chicago, IL 60604

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