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Environmental Protection
Agency

Office of Public Affairs
Region 5
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Chicago, Illinois 60604

Illinois Indiana
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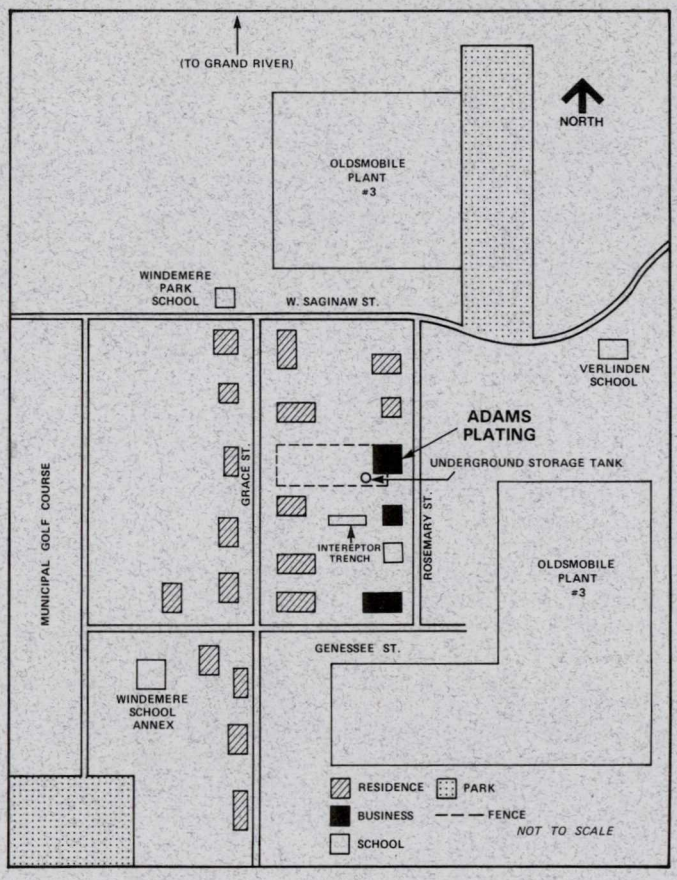
Superfund Fact Sheet

Adams Plating Superfund Site
Lansing, Michigan

May 1989



THIS FACT SHEET WILL TELL YOU ABOUT:

- o The history of the site
- o The upcoming investigation
- o ***The Superfund program****
- o Technical Assistance Grants
- o How you can obtain more information

PUBLIC INFORMATION MEETING

Representatives from the U.S. EPA, the Michigan Department of Natural Resources, and the Ingham County Health Department will be available at an upcoming public information meeting to discuss the planned investigation at the Adams Plating site and to answer questions about the Superfund program. All interested residents and officials are encouraged to attend.

DATE: Thursday, May 18, 1989

TIME: 7:00 p.m.

PLACE: Lansing Township Hall
3209 W. Michigan St.
Lansing, MI 48917

INTRODUCTION

The U.S. Environmental Protection Agency (U.S. EPA) is planning to conduct a Remedial Investigation/Feasibility Study (RI/FS) at the Adams Plating site in Lansing, Michigan. The RI/FS will characterize the nature, extent, and amount of contamination at the site. It will conclude with an evaluation and selection of alternatives for the site. The purpose of this fact sheet is to provide background information about the Adams Plating site, explain the RI/FS process that will be conducted, and inform interested citizens of the public meeting to be held by the U.S. EPA.

* Words appearing in ***bold italics*** are defined in the Glossary on page 5

SITE BACKGROUND

Description

The Adams Plating facility site is located on Rosemary Street in Lansing Township, Ingham County, Michigan. The 1-acre facility, located about one mile northwest of downtown Lansing, is adjacent to an automobile plant to the east and residences and small businesses to the south, west, and north (see figure). The Adams Plating Company is a family-owned ***electroplating*** business that is currently operating. The site contains an electroplating building and old equipment and tanks stored outside in the fenced-in backyard. The front of the site property is covered by a paved customer parking area.

History

Before electroplating operations began, the site was used by a dry cleaning company. In the mid-1950s, an underground storage tank containing ***solvents*** was discovered to be leaking and subsequently was removed. It is not yet known whether the tank's contents have contributed to the current contamination problem.

Since 1964, the site has been used for electroplating operations. Initially, wastewaters from the electroplating operations were discharged to the storm sewers. In 1971, the site was connected to the municipal sanitary sewers, to which wastewaters were discharged directly until the mid-1970s. After this time, wastewaters were collected, stored, and treated prior to discharge to the municipal sewers. Wastewaters were first stored on-site in an 800-gallon, partially-buried tank, which subsequently was removed when it was discovered to be leaking. Wastewaters were then transferred to a 3,000-gallon underground storage tank in the southwest corner of the site. This tank is still being used for wastewater storage.

Evidence that a contaminant release from the Adams Plating site may have occurred was first observed in July 1980 when a tree was removed on a neighboring property south of the Adams Plating site. An old tile drain was broken as the tree was uprooted. At the time, residents observed "green water" entering the hole. Sometime later that month, "green water" flooded the basement of a nearby home. Initially, the residents pumped the "green water" to their yard. This pumping system continued for about six months, until the flooding problem was reported to the Ingham County Health Department (ICHD) on January 1981.

Throughout 1981, the ICHD, and later, the Michigan Department of Natural Resources (MDNR) took samples of the "green water" in the basement, the air in the basement and home, and the soils and ground water of the surrounding property. Basement water samples revealed the presence of ***chromium***. Chromium was also detected in air, ground water, and soil samples, although in lower levels than detected in the basement water. In addition, a solvent called ***1,1,1-trichloroethane*** was also detected in the water samples.

Between 1981 and 1982, ICHD and MDNR arranged to have the owners of the Adams Plating site (1) plug the drain that was thought to be transporting "green water" off-site; (2) excavate a trench to intercept ***ground water*** flowing from the Adams Plating site towards the affected home; and (3) improve the basement pumping system. The improved pumping system transferred the basement "green water" to a tank, which then was transported by truck back to the Adams Plating site. Later, the basement "green water" was pumped into the trench that was excavated to intercept the ground water (i.e., the interceptor trench). Water collected in the interceptor trench was transported via a piping system back to the underground storage tank at the Adams Plating site.

These remedial measures helped to reduce the flow of "green water" into the basement of the nearby home. However, ICHD reports that the basement continues to collect "green water" on occasion, although in less quantity and chromium concentration than in 1981 and 1982. Samples of "green water" from the interceptor trench and basement collected in 1984 and 1987 revealed levels of chromium that were lower than detected in 1981. The water samples also revealed the presence of two solvents, 1,1,1-trichloroethane and ***1,2-dichloroethane***. No chromium is detected in indoor air samples taken. The collection system is still operating.

Although the pumping/collection system and interceptor trench have reduced the concentration and volume of chromium-contaminated water in the resident's basement, the ICHD and the MDNR continued to express concern over the extent of contamination at the Adams Plating site. In response, the U.S. EPA conducted a detailed review of the site and filed a preliminary site inspection report on October 1986. Based on the results of this report, the Adams Plating site was listed on the ***National Priorities List*** in March 1989.

CHRONOLOGY OF EVENTS AT THE ADAMS PLATING SITE

Pre-1964	Dry cleaning business operates at the Adams Plating site.
1964	***Electroplating*** operations begin.
1980	An old tile drain breaks during a tree removal near the Adams Plating site. Observations of "green water" in the hole left by the removed tree and in the basement of a nearby home suggest that an underground off-site release may have occurred. Resident pumps basement water onto property yard.
Early 1981	The Ingham County Health Department (ICHD) is first notified of the "green water" problem. ICHD investigates the basement where water is collecting. Samples taken reveal that the basement water contains elevated levels of ***chromium***. Basement water is pumped to a tank.
Late 1981	The Michigan Department of Natural Resources (MDNR) conducts further sampling. Samples reveal the presence of chromium in ***ground water*** and of chromium and ***solvent*** chemicals in soil. An interceptor trench is installed to prevent "green water" flow into the basement, and later to collect basement water for transfer to the Adams Plating site.
1984 to 1987	MDNR and ICHD continue to monitor the site and collect additional samples, which reveal lower chromium levels in the basement water than detected in 1981. Solvents also are detected in basement water. No chromium is detected in indoor air samples.
1986	U.S. EPA conducts a detailed site review and files a preliminary site investigation report.
1989	Site is listed on the ***National Priorities List***.

CURRENT AND FUTURE ACTIONS

Cleanup actions at Superfund hazardous waste sites begin with an extensive study that is organized into two related phases: the Remedial Investigation (RI) and the Feasibility Study (FS). The purpose of the RI is to define the nature, extent, and amount of contamination at the site. The FS identifies and evaluates remedial alternatives for addressing site contamination.

The U.S. EPA has prepared a work plan that describes the field work to be conducted during the RI/FS at the Adams Plating site. The following table outlines the objectives of the RI and the specific activities that will be undertaken during the summer months in 1989 to meet these objectives.

Objective	Activity
Characterize the nature, lateral extent, and amount of surface and subsurface soils contamination	Collect soil/sediment samples between the site and basement and from trench excavation locations
Define the vertical extent of soil contamination	Collect soil boring samples between the site and affected area
Characterize the nature, extent, and amount of surface water contamination	Collect surface water samples from the site vicinity, standing water, and tile drain location, if possible
Characterize the nature, extent and amount of shallow ground water contamination	Install monitoring wells and collect ground water samples
Determine the condition and extent of the tile drain system	Excavate to locate the buried tile drain system
Assess the effectiveness of the ground water interceptor trench	Investigate basements if seepage occurs during field investigations

After field data have been collected, an RI report will be prepared to present the results of the testing, analysis, and investigations outlined above and describe the contamination in the site area. The U.S. EPA will also use the field data to conduct a risk assessment of the Adams Plating site. This assessment will evaluate the potential for the public to be exposed to the contaminants found at the Adams Plating site. The U.S. EPA will make this risk assessment available to the Agency for Toxic Substances and Disease Registry (ATSDR), which is a separate federal agency responsible for addressing public health questions relating to Superfund sites.

It is anticipated that the RI report and risk assessment will be completed by Spring 1990. Work on the Feasibility Study (FS), the second part of the RI/FS, will be based on the information gathered during the RI. More information on the RI and FS will be presented in subsequent fact sheets.

OFF-SITE ACTIVITIES

As part of the RI, the U.S. EPA may conduct an off-site investigation, which may include sampling of soil and ground water on and around nearby private properties. All residents whose properties will be sampled will be contacted by U.S. EPA regarding access to their properties. Residents will be informed about the purpose and scheduling of sampling activities and provided with test results upon completion of laboratory analyses.

COMMUNITY INVOLVEMENT

As part of the U.S. EPA's responsibility and commitment to the Superfund program, community relations activities will be ongoing throughout the RI/FS process at the Adams Plating site. The U.S. EPA has established information repositories where relevant site documents describing technical work at the Adams Plating site will be placed, including the work plan and other planning documents for RI activities, fact sheets providing updated information regarding on- and off-site activities, and eventually, the completed RI/FS reports. Fact sheets, such as this one, will be distributed to interested residents on the U.S. EPA's mailing list. Interested persons can use the address request form located on page 7 of this fact sheet to add their name to the site mailing list.

TECHNICAL ASSISTANCE GRANTS

The U.S. EPA recently introduced a new program that enables groups of interested citizens to obtain financial assistance in interpreting and understanding data generated during the RI/FS process. Technical Assistance Grants (TAGs) provide up to $50,000 to community groups who want to hire consultants to interpret site sampling results and reports. Educational institutions, municipalities, or government agencies are not eligible to receive TAGs. However, government officials may belong to a community group requesting a TAG.

Thirty-five percent of the requested funding amount must be matched by the community group requesting the TAG. For example, if $50,000 were requested, the group must provide an additional $17,500 or obtain it from some other source. Matching funds may be obtained from in-kind services and originate from any non-federal source. TAGs cannot be used to duplicate field or laboratory work; they may be used only to understand or interpret existing data and evaluations performed at the site.

The Adams Plating site is in an early stage of the RI. A TAG may be more useful several months from now. However, the process for obtaining a TAG is fairly complex, and this early stage may be a good time to learn more about the program. The section below entitled "Further Information" identifies the location of information repositories, which contain documents that further explain these issues. It also provides the names and telephone numbers of federal and local officials who are able to answer questions.

FURTHER INFORMATION

Individuals desiring further information about the specific activities planned for the Adams Plating site or the Superfund program are encouraged to consult documents in the information repositories. Each repository listed below contains copies of the RI/FS work plan and related site documents, information on the TAGs and Superfund program, and an inventory of these other documents as they are completed. Information repositories are located at:

Lansing Township Hall
3209 W. Michigan
Lansing, MI 48917

Contact: Dorothy Johnston
(517) 485-4063

Lansing Public Library
401 S. Capitol Street
Lansing, MI 48933

Contact: Mrs. Paulson
(517) 374-4600

If you have further questions or concerns regarding the Adams Plating site, please contact MaryAnn Croce, U.S. EPA Community Relations Coordinator, at (312) 886-1728 or Rita Cestaric, U.S. EPA Regional Project Manager, at (312) 353-6500. You may leave a message for U.S. EPA contacts listed above at the Superfund toll free number (800) 621-8431 9:00 a.m. - 4:30 p.m. Central Time. You may also contact Bob Ceru, Chief of Special Programs, Ingham County Health Department, at (517) 887-6988.

GLOSSARY

Chromium - A metal commonly used in electroplating processes to give a bright finish to objects. Ingestion of chromium at high doses can cause hemorrhages of the digestive tract. Inhalation of chromium over a long period of time can cause lung and other respiratory cancers.

1,2-Dichloroethane - A liquid chemical that is a breakdown product of 1,1,1-trichloroethane. 1,2-Dichloroethane has been shown to cause cancer in laboratory animals and is classified as a mutagen, which is an agent that causes permanent alterations of genetic materials within living cells.

Electroplating - Electroplating is a process that involves the dipping of objects into vats of liquid metal solution to impart a bright finish to their surface.

Ground water - Water contained in rock, soil, sand, or gravel beneath the earth's surface. Rain that does not evaporate or immediately flow to streams and rivers slowly seeps into the ground to form a ground water reservoir. When a sufficient quantity of seepage occurs, the resulting ground water can be used as a drinking water source.

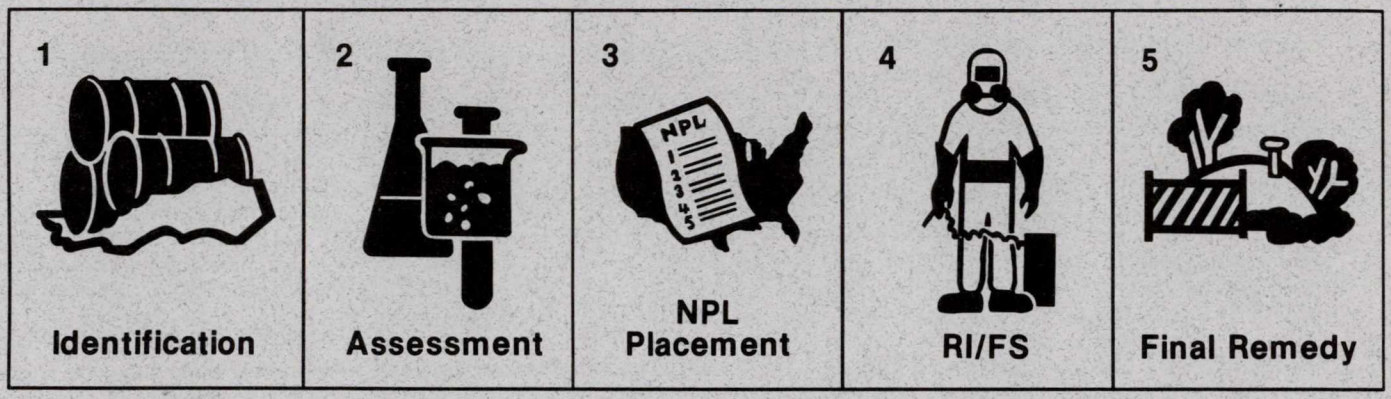
National Priorities List (NPL) - The NPL is a national roster of uncontrolled or abandoned hazardous waste sites. Sites on the NPL are eligible to receive monies for cleanup under the Superfund program.

Solvents - Solvents are liquid chemicals used in a variety of industrial processes. Solvents include cleaners, such as turpentine, and dry cleaning fluids, such as 1,1,1-trichloroethane.

Superfund program - The commonly-used name for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Superfund authorized the U.S. EPA to respond directly to releases or threatened releases of hazardous substances that may endanger public health, welfare, or the environment. The Superfund Amendments and Reauthorization Act (SARA) was passed by Congress in 1986 to update and improve the old Superfund law. SARA created an $8.5 billion cleanup fund, which is supported by taxes on crude oil and commercial chemicals.

1,1,1-Trichloroethane - A colorless liquid used as a metal degreaser, a cleaner in dry cleaning operations, and a propellant in aerosol cans. It has a sweet odor, resembling that of chloroform. Long-term exposure can result in liver damage.

THE SUPERFUND PROCESS



The Comprehensive Environmental Response Compensation and Liability Act (CERCLA, also known as Superfund) was enacted by Congress in December 1980. The new law established a program to investigate and clean up actual and potential releases of hazardous substances at sites throughout the United States. In 1986, Congress reauthorized the law under the Superfund Amendments and Reauthorization Act (SARA), and increased the size of the fund from $1.6 billion to $8.5 billion. The U.S. EPA administers the Superfund program in cooperation with individual states.

The Superfund process involves several steps after a potential site is initially identified (1). After a preliminary inspection of the site is conducted by the U.S. EPA or state agency, the site is evaluated for its potential impact on human health and the environment (2). If the sites poses a serious enough threat to the community, it is placed on the National Priorities List (NPL), a roster of the nation's worst hazardous waste sites (3).

Sometime after the site is placed on the NPL, U.S. EPA plans and conducts a remedial investigation and feasibility study (RI/FS) (4). The RI is a long–term study to identify the nature and extent of contamination at the site. Based on the results of the RI, the FS then evaluates the alternatives for addressing the site contamination.

If potentially responsible parties (PRPs) can be identified and are willing to cooperate with U.S. EPA, one or more of the PRPs may conduct the RI/FS. All work conducted by the PRPs is closely monitored by state and federal agencies.

After the public has had an opportunity to comment on the alternatives presented in the FS, the U.S. EPA chooses the most appropriate alternative as a final remedy for the site. The chosen remedy is then designed and implemented (5).

At each site where a long–term investigation and cleanup takes place, the U.S. EPA prepares a community relations plan to provide information about community concerns and enhance communication between U.S. EPA and the local community.

At any time during this process, the U.S. EPA may conduct an emergency response action if the site becomes an immediate threat to public health or the environment.

MAILING LIST ADDITIONS

If you or someone you know would like to be placed on the Adams Plating site mailing list, please fill out this form and mail it to:

MaryAnn Croce (5PA-14)
Community Relations Coordinator
U.S. Environmental Protection Agency, Region 5
Office of Public Affairs
230 South Dearborn Street
Chicago, Illinois 60604

Name: _____

Address: _____

City _____ State _____ ZIP _____

Affiliation: _____ Phone: _____
(if applicable)

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 5
Office of Public Affairs
230 South Dearborn Street
Chicago, Illinois 60604