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# EPA Environmental News

For more information call



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# SETTLEMENT REACHED FOR CLEANUP OF INDUSTRI-PLEX HAZARDOUS WASTE SUPERFUND SITE

BOSTON---The U.S. Environmental Protection Agency (EPA) today announced a settlement for the cleanup of the Industri-plex hazardous waste Superfund site in Woburn, Massachusetts. Under the settlement, 34 current or former owners of land at the site, including Stauffer Chemical Company, Monsanto Company, and the Trustees of the Mark-Phillip Trust, will finance and perform the cleanup at an estimated cost of \$24 million.

EPA Regional Administrator Michael R. Deland said, "This settlement is an innovative solution to the extremely complex environmental problems at the site. The settling parties and federal and state negotiators all worked extremely hard to bring this settlement to an imaginative and constructive conclusion. The settling parties will clean up the site to EPA's specifications and will reimburse EPA for almost all of the money it has spent at the site."

The settlement was reached under the federal Superfund law, which requires property owners and other parties responsible for chemical wastes to clean up contaminated sites. The settlement also covers claims by the Commonwealth of Massachusetts under federal and state environmental laws.

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One of the unique features of this settlement is that property at the site owned by the Mark-Phillip Trust will be sold to pay for the cleanup and reimburse the government for its expenses. This technique may be used at other sites where a party liable for the cleanup has little or no funds but owns valuable land. Deland stated, "We hope that some of the tools and techniques developed to reach this settlement will become models for use at other sites with similar problems throughout the country."

To clean up the site, the settling parties will construct soil covers over contaminated soils, a gas collection and treatment system for toxic gases emitted from the "East Hide Pile" portion of the site, and a system to capture and treat contaminated groundwater. They will also perform further studies of groundwater contamination at and around the site. In conjunction with the federal and state governments, the settling parties will design and implement controls on future development to prevent the further spread of contamination.

The settling parties will immediately pay the United States \$377,000 in past costs out of about \$1.3 million. The federal government will be paid most of the remainder when the Mark-Phillip Trust property is sold. The settling parties will also reimburse the Commonwealth of Massachusetts for its past costs of \$6,000.

The site covers about 245 acres one mile northwest of the intersection of Routes 93 and 128. It is currently a mixture of undeveloped land and properties developed as an industrial park. The major sources of contamination are lead, arsenic, and chromium in soils, emissions of hydrogen sulfide gas from buried animal hide wastes, and benzene and toluene plumes in groundwater. The Industri-plex site has been the location of chemical manufacturing and disposal since the 1850's.

The settlement is incorporated in a consent decree filed yesterday in federal district court in Boston. The public will have thirty days to comment on the settlement. The court will have final approval over the terms of the decree.

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### SITE HISTORY

The Industri-Plex Superfund site (the Site) is a 245-acre industrial park located in the City of Woburn, Middlesex County, Massachusetts. The Site sits at the intersection of two major highways, Route 128 traversing east to west and Route 93 oriented north and south.

Between 1853 to 1931, the Site was used by predecessors to Monsanto Chemical Company for manufacturing chemicals such as leadarsenic insecticides, acetic acid, and sulfuric acid. In addition, chemicals used or manufactured by industries at the Site include phenol, benzene, and toluene. In 1934, the property was sold to the New England Chemical Company, which constructed a glue manufacturing plant on the site. The New England Chemical Company and later owners, including Stauffer Chemical Company, utilized a manufacturing process that involved cooking animal hides to extract glue. Residues from the animal hides were buried in pits on the Site.

In December 1968, the Mark-Phillip Trust purchased the Stauffer Chemical Company property and other parcels of land to develop an industrial park. During development in the 1970's, the industrial by-products and wastes that had accumulated over the past 120 years were unearthed, released and redeposited throughout the Site. The exposure of decaying hides, found on approximately 20 acres of the Site, resulted in noxious odors caused by the decomposition of the organic wastes.

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In 1979, in response to illegal filling of wetlands, EPA obtained a court order to stop further development activities. In October 1981, the Site was listed on the EPA Superfund Interim Priorities List of sites eligible for federal funding for investigation and cleanup. The Site was added to the final EPA National Priorities List in December 1982.

In May 1982, under a consent order with EPA and DEQE, Stauffer Chemical began a Remedial Investigation (RI) for the Site. The RI involved sampling and analysis of soil and waste deposits, ground and surface water monitoring, characterization of air emissions and odors emanating from the site, and assessments of the human health and environmental impacts of the hazardous wastes at the site.

Investigations of the Site have found contamination consisting of various hazardous substances and hazardous wastes, including heavy metals, organic wastes, and volatile organic compounds (VOCs). Under existing conditions the Site continues to release hazardous substances and hazardous wastes to the environment and poses a significant threat of continued release.

Based on the findings of the RI, a Feasibility Study (FS) was conducted to establish the criteria for cleaning up the site, to identify and screen remedial alternatives to address site contamination, and to analyze in detail the technology and costs of the remedial alternatives after a public comment period on the proposed remedy for the Site. EPA selected the remedial cleanup plan for the Site in September 1986. EPA then entered into negotiations with the parties deemed potentially responsible for the Site contamination to have them conduct and fund the cleanup under EPA supervision.

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## FACT SHEET

#### INDUSTRI-PLEX SUPERFUND SITE

#### DETAILED DESCRIPTION OF THE SETTLEMENT

### 1. WORK TO BE PERFORMED

<u>Soils</u>: Soils contaminated with heavy metals in concentrations over 300 parts per million (ppm) of arsenic, 600 ppm lead, and 1000 ppm chromium will be covered with thirty inches of clean soil. During the remedial design phase, EPA and the settling parties will examine the feasibility of using an alternative cover consisting of a synthetic membrane and thinner soil cover.

<u>Air Emissions</u>: The "East Hide Pile" area will be covered by an impermeable cap consisting of a plastic membrane in combination with vegetative and drainage layers. A gas collection system will be built under the impermeable layers to collect hydrogen sulfide gas produced by the anaerobic decomposition of organic hide wastes and other gases emitted from the pile. The collected gases will be treated either by burning or by carbon adsorption. The specific method will be determined during remedial design.

<u>Groundwater</u>: The discrete plumes of benzene and toluene in groundwater will be captured by a series of interceptor wells located downstream of the plumes. Collected groundwater will be subjected to air stripping to remove the volatile contaminants. The treated groundwater will be discharged back into the ground through a leaching system located on the site.

<u>Groundwater and Surface Water Studies</u>: The settling parties will undertake further studies to determine the extent of more general areawide groundwater and surface water contamination flowing on to and off the site. Using this information EPA will determine whether additional ground or surface water cleanups are necessary.

# 2. INSTITUTIONAL CONTROLS

During the remedial design phase, the settling parties, under the supervision of EPA and the Commmonwealth of Massachusetts, will design a set of regulations and procedures for the types of activities that will be permitted on contaminated areas of the site and the ways under which those activities may be conducted. These "institutional controls" are necessary to ensure that the remedial actions continue to be effective in preventing the further spread of contamination. Τn addition, some of the developed areas of the site are built on contaminated soil. Because buildings, roads, parking lots, and similar structures provide an effective cover for the contaminated soils, it will is necessary to regulate the modification and maintenance of such features to ensure that they continue to be effective elements of the remedial action. The institutional controls may be in the form of documents to be recorded with the deeds to properties at the site, or other methods to be developed by the settling parties, EPA, and the Commonwealth.

## 3. USE OF THE MARK-PHILLIP TRUST PROPERTY

The Mark-Phillip Trust owns approximately 110 acres at the site. As party of the settlement, the Mark-Phillip Trust will convey its land to a new trust that will hold, manage, and sell the property. When the property is sold, the United States will receive 11% of the first \$8 million in sale proceeds (equal to \$880,000), 50% of the proceeds from \$8 to 10 million, and 70% of the proceeds over \$10 million. The government's share of the proceeds from \$8 to 10 million will be held in escrow to finance future groundwater studies or cleanups or other cleanup activities. All other proceeds of the sale of the Mark-Phillip Trust property will be used to finance the remedial action.

### 4. HOW THE REMEDIAL ACTION WILL BE CONDUCTED

Although all the settling parties are responsible for the performance of the remedial action, Monsanto Company will take the lead in performing the work. EPA will supervise all aspects of the project. The work will be performed in a series of steps as follows:

<u>Pre-design Studies</u>: The settling parties will first gather additional data for use in designing the remedial actions. These include a more precise mapping of the areas of contamination and determinations of treatment standards for the contaminated groundwater and standards for air emissions. <u>Remedial Design</u>: In this phase the parties will design the plans and specifications to be used in the actual construction work. EPA will review the plans and specifications at several different stages in their development.

<u>Remedial Contruction</u>: During this phase, the soil covers and various treatment facilities will be constructed.

<u>Operation and Maintenance</u>: The final phase involves the operation and maintenance of the covers and treatment systems in accordance with plans and schedules developed during the design phase.

#### 5. HOW THE CONSENT DECREE WILL BECOME EFFECTIVE

EPA will publish a notice of the proposed settlement in the Federal Register within a few days. That will begin a thirty-day period during which the public may submit comments on the proposed decree. At the end of the comment period the government will determine if it is appropriate to finalize the settlement in light of the comments received. If so, it will request the federal court to approve the consent decree and enter it as a binding court order. All timetable and schedules for performance of the remedial action begin to run when the court approves the consent decree.

The proposed consent decree is available at the Woburn Public Library and at the EPA Records Center, 90 Canal Street, Boston. Comments may be submitted to:

Assistant Attorney General Lands and Natural Resources Division United States Department of Justice Washington, DC 20530

Re: U.S. v. Stauffer Chemical Company DOJ Ref. 90-11-2-228