



LOCKHEED MARTIN 
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A Citizens' Guide to the Proposed Soil Cleanup at Haley's Ditch

May 2009 | Akron, Ohio

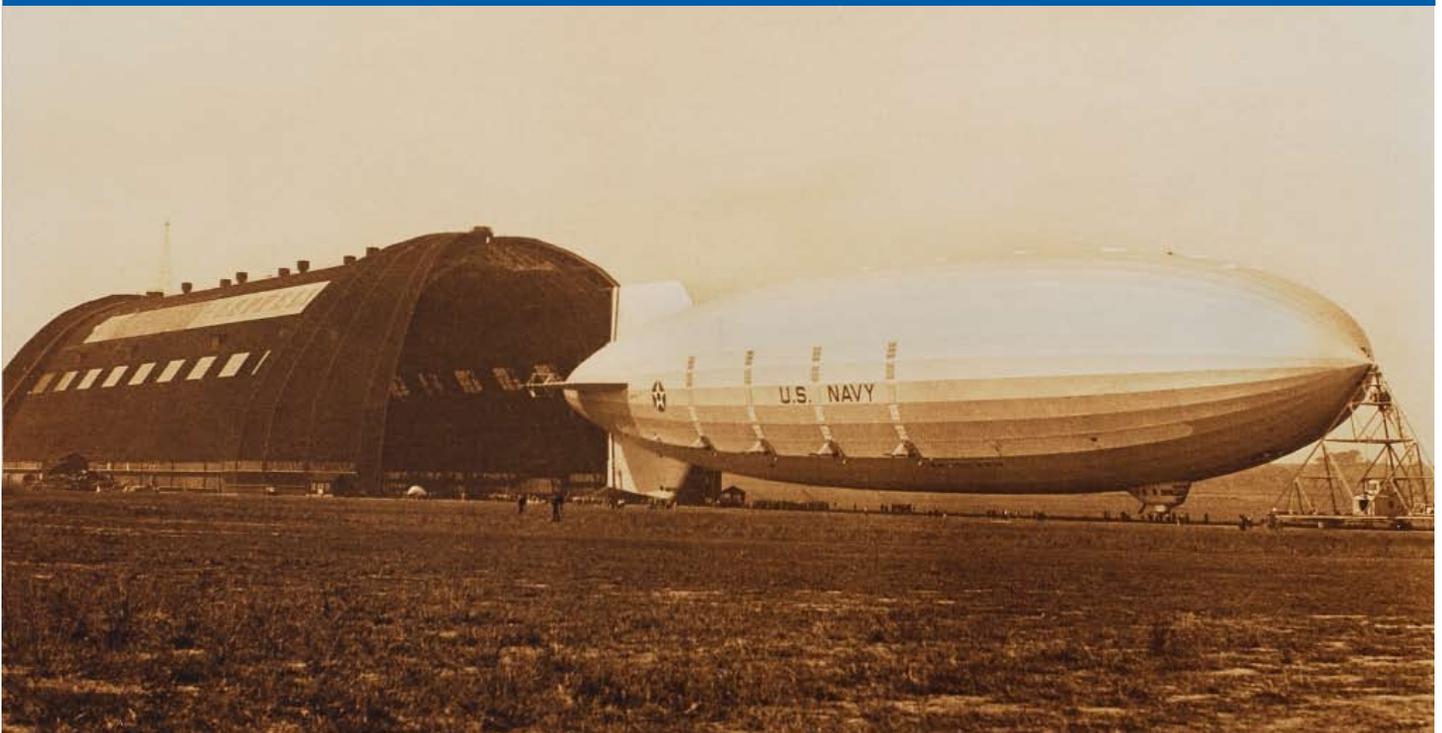
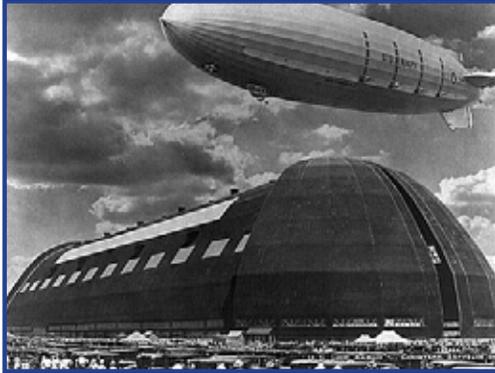


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Introduction

This Citizens' Guide is designed to help residents and interested community members understand the soil cleanup Lockheed Martin has proposed for an 1,800-foot stretch of Haley's Ditch in Akron, Ohio.

The guide will provide background information about the project, describe Lockheed Martin's work with state and federal environmental agencies to assess the scope of the contamination, and offer details regarding what residents and the community could expect if the proposed plan is approved.

Lockheed Martin submitted the proposed plan to the U.S. Environmental Protection Agency (U.S. EPA) in January 2009. The Corporation cannot begin work until it receives approval from the U.S. EPA.

This guide describes Lockheed Martin's proposal for cleaning up sediment and soil contaminated with polychlorinated biphenyls (PCBs) in Haley's Ditch. The PCBs were carried with rainwater from the Airdock, a facility built by the Goodyear-Zeppelin Corporation in 1929 for the manufacture of the company's enormous lighter-than-air ships.

The famous landmark was constructed using material coated with a fire-retardant substance that contained PCBs. When some of the Airdock's roofing and siding material eroded over time, dust particles fell to the ground. The particles migrated through the local storm drainage system to Haley's Ditch.

As the current operator of the Airdock when PCBs were detected on-site in 2003, Lockheed Martin has assumed responsibility for cleanup of Haley's Ditch.

Lockheed Martin's proposed cleanup for Haley's Ditch includes removing and disposing of soft sediment and soil with PCB concentrations greater than a U.S. EPA action level; replacing excavated soil with clean soil; and restoring and enhancing the habitat of excavated areas after the cleanup is completed.



Background Information

What is the Airdock?

In 1929, the Goodyear-Zeppelin Corporation built a facility for manufacturing its enormous lighter-than-air ships, including the famous Goodyear Blimp. Known as the Airdock, the building — which is larger than seven football fields — is located at 1210 Massillon Road in Akron, Ohio.

Lockheed Martin assumed ownership of the local landmark in 1997, when it acquired portions of Loral Corporation, which had owned the building since purchasing assets of Goodyear Aerospace Corporation in 1987. The Summit County Port Authority assumed ownership of the Airdock in 2006, and it leases the building to Lockheed Martin. The Corporation employs about 650 people at its Akron facility.

Where is Haley's Ditch?

Haley's Ditch is a drainage ditch that begins several thousand feet north of the Airdock and extends through private, industrial and municipal properties.

Lockheed Martin's proposed Haley's Ditch cleanup project involves 1,800 feet of the ditch, from the storm drain culvert originating at Triplett Boulevard to the end of the open channel near the intersection of Archwood Avenue and Seiberling Streets.

The total project area is approximately 5 acres. Lockheed Martin has obtained access and permission for remediation from all landowners in the project area.

Where did the PCBs come from?

When the Airdock was built, in the 1920s, the facility's protective metal roof and siding material contained PCBs which functioned as a fire-retardant substance.

Over the years, some of the Airdock's roofing and siding material eroded, and dust particles fell to the ground. Rainwater carried the particles through the local storm drainage system and PCB was detected in the sediment and soil along Haley's Ditch.

Has the Airdock been cleaned?

Yes. After PCBs were detected at the Airdock in 2003, Lockheed Martin worked closely with the U.S. EPA and Ohio Environmental Protection Agency (Ohio EPA) to evaluate the extent of the contamination and to clean up the Airdock and the surrounding pavement, soils and storm drain system. Lockheed Martin is in regular communication with the U.S. EPA regarding the operation of the Airdock.

The Corporation also implemented numerous measures designed to control the source of the contamination and eliminate future releases of PCBs from the facility. Under the supervision of Ohio EPA, Lockheed Martin is performing post-cleanup storm water monitoring to verify that its remedial actions have been effective.



Assessing Contamination at Haley's Ditch

How was the PCB contamination assessed at Haley's Ditch?

Between 2005 and 2008, Lockheed Martin — in collaboration with the U.S. EPA and Ohio EPA — collected more than 500 soil and sediment samples from 150 locations in and adjacent to Haley's Ditch. The sampling provided Lockheed Martin's environmental team with initial information on the depth, area and scope of the PCB contamination. The team used that information to identify the initial depth and areas where soil and sediment should be removed.

What were the results of the sampling?

The initial investigation detected PCBs in soil on the surface and below the surface of the floodplain.

Some soil samples showed PCB concentrations greater than 1 milligram per kilogram (mg/kg), which is considered the U.S. EPA unrestricted-use level, and concentrations at four sampling locations exceeded 50 mg/kg. PCBs detected in sediment samples were at concentrations below 50 mg/kg.

To put it into context, "one mg/kg" equates to "one in a million." To use two analogies: One milligram of PCB in a kilogram of dirt would be the equivalent of 1 teaspoon of dirt in a 12-ton dump truck or one car in bumper-to-bumper traffic from Cleveland, Ohio, to San Francisco, Calif.

Lockheed Martin's Proposed Work Plan

What is the objective of the proposed work plan?

Lockheed Martin submitted its proposed remedial work plan to the U.S. EPA in January 2009. Lockheed Martin's objective for the cleanup is to remove PCB-contaminated soil and sediment to achieve a level that will not pose a risk to the health of people, animals or the environment.

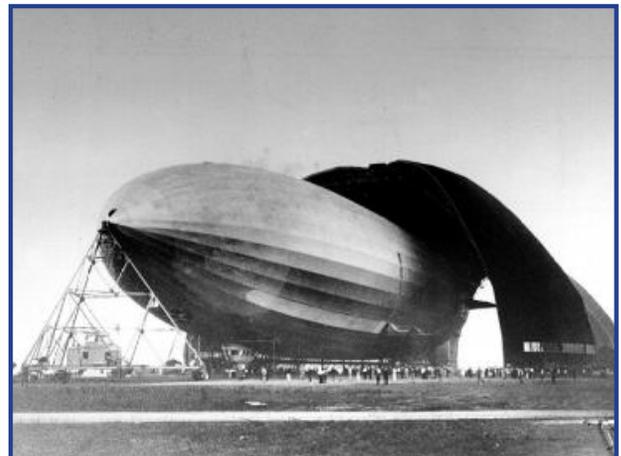
What is the scope of the proposed work?

Lockheed Martin's work plan proposes to remove soil and sediment with a PCB concentration over 1 mg/kg and to restore and enhance the environment around Haley's Ditch after the cleanup is completed.

What is the schedule for the proposed work?

Lockheed Martin plans to begin cleanup activities in June or July 2009, although the schedule will depend on when it receives approval from the U.S. EPA and permits from federal, state and local agencies.

The proposed cleanup activities are expected to be completed by late fall 2009. The activities will include removing contaminated sediment and soil, processing materials, restoring the site and demobilizing from the site.



Proposed Sediment And Soil Removal Activities

Can you explain what will be involved in cleaning up the sediment and soil in Haley's Ditch?

Lockheed Martin's proposed work plan calls for removing soft sediments from depths of 1 to 3 feet and soil along the banks and nearby floodplain in the highest concentration areas. The work will require the removal of most of the trees and vegetation from Haley's Ditch.

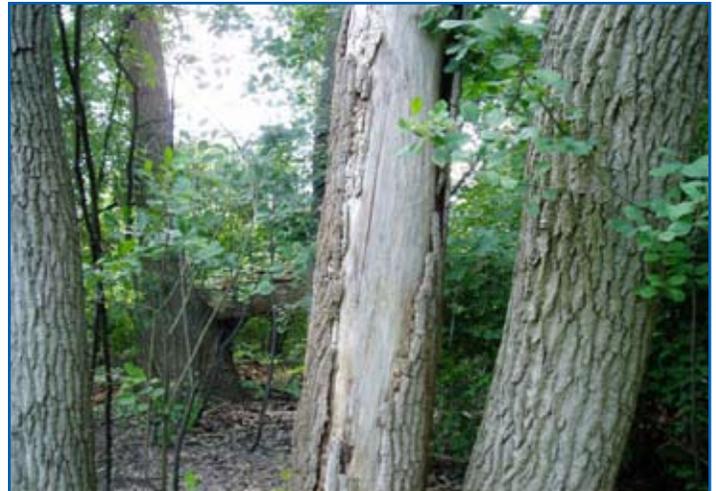
Lockheed Martin has proposed removing and appropriately disposing of about 600 cubic yards of sediment and about 10,000 cubic yards of surface and subsurface soil from the ditch. A cubic yard measures 3 feet by 3 feet by 3 feet and equals about one ton.

After the sediment and soil removal is completed, the Corporation plans to conduct additional "verification" sampling that will determine if more soil or sediment needs to be removed to ensure there is no risk to the health of people, animals or the environment.

Before it begins any work, Lockheed Martin must submit the appropriate permit applications and notices to the U.S. EPA, Ohio EPA and U.S. Army Corps of Engineers. The work itself will be conducted under the supervision of these agencies and the verification sampling will be submitted to U.S. EPA.

Can Lockheed Martin start right in with the cleanup after receiving approvals?

Actually, there are numerous jobs that must be completed before the cleanup could begin. That work will involve preparing the site, creating truck access to Haley's Ditch, clearing the site, constructing a material-staging area, and assembling the material-handling and water-handling systems.



How will the actual cleanup be handled?

Once the preparations are completed, soil removal activities will be conducted in segments — beginning at the southern end of Haley's Ditch near Triplett Boulevard and progressing to the northern end near the intersection of Archwood Avenue and Seiberling Streets.

When possible, Lockheed Martin will load the excavated sediment and soil directly into dump trucks and remove it from the site.

What will happen in the staging areas?

The material-staging area provides a place where excavated sediment and soil can be managed and stored short-term (one to three days) when it is not feasible to load it directly into the dump truck for transport.

For example, if the removed sediment or soil requires special handling techniques such as the removal of water prior to transport, the water is removed in the staging area before the soil and sediment is loaded into trucks and transported to the licensed and permitted disposal facility.

How will Lockheed Martin know it has completed the cleanup?

The work plan proposes that after the contaminated soil and sediment is removed, and before clean soil is added or the site is restored, Lockheed Martin's environmental team will collect "verification" samples to ensure the remaining soil met the U.S. EPA's PCB standard of less than 1 mg/kg.

If verification samples are equal to or greater than 1 mg/kg, additional soil will be removed and more verification samples will be collected for analysis. This process will continue until all verification samples were less than 1 mg/kg. All of this sampling data will be provided to U.S. EPA and Ohio EPA.

After the initial excavation, Lockheed Martin also proposes to collect samples at the perimeter of the cleanup site to ensure it fully defines the area that has been cleaned.

Proposed Site-Restoration Activities

Can you describe the proposed site-restoration activities?

Lockheed Martin has proposed a stream restoration project in conjunction with the cleanup of Haley's Ditch. The proposed project calls for replacing the ditch with a meandering stream that will improve the natural movement of water and enhance the habitat in the cleanup area.

The remediation project provides the opportunity to create a meandering channel within a larger floodplain corridor. The natural channel design, floodplain and wetland restoration will enhance the environmental recovery of the entire site. In particular, the environmental team believes that widening and expanding the current floodplain will provide floodwater storage that prevents erosion and allows fine sediments to deposit in the floodplain as to opposed to within the channel. A combination of imported clean sand, gravel and topsoil will be used in the restoration area.

The restored floodplain will be filled with material containing less than 1 mg/kg PCBs, and the top foot will include topsoil that contains less than 0.5 mg/kg PCBs.

In addition to the stream restoration, clean soil will fill in the adjacent stream banks and wetlands, and native shrubs and trees will be planted in the project area.



Photo depicts Haley's Ditch along Langdon Street looking north from the intersection of Salem Street.



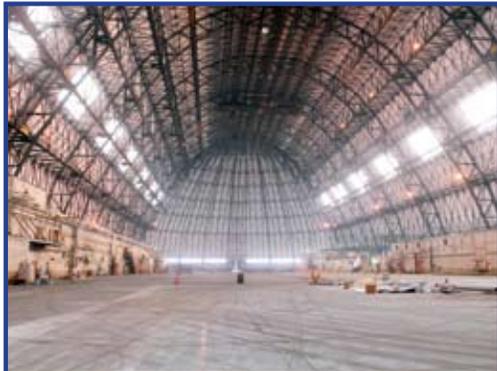
Photo conception depicts the same view after the restoration has been completed and the vegetation has been established.

The Community Plays an Important Role

What is Lockheed Martin doing to communicate with the community?

Lockheed Martin encourages community members to provide input on the proposed work plan for the Haley's Ditch project. By publicly offering comprehensive details about the proposed project, the work plan creates an opportunity for dialogue between Lockheed Martin and the community and encourages stakeholders to bring forward their concerns while the project is being developed.

Lockheed Martin will host public information sessions that will provide community members the opportunity to come at their convenience to learn more about the work proposed for the cleanup of Haley's Ditch and to provide their input and comments. Regular newsletters and updates will be issued as work progresses. The project manager also will be available throughout the work to answer questions, accept comments and provide presentations to interested community organizations.



For More Information

Post cleanup report contact information

A post-excitation report will be prepared after the clean-up to summarize the completed field activities and to present the verification sampling results.

All reports are available on the Lockheed Martin website at http://www.lockheedmartin.com/aboutus/energy_environment/community_solutions/akron-oh.html as well as at the Ellet Branch Library.

Contact Information

For more information, contact Lockheed Martin representative Cory Smith at 330-796-2038 or cory.a.smith@lmco.com. More contact information is available on page 12.

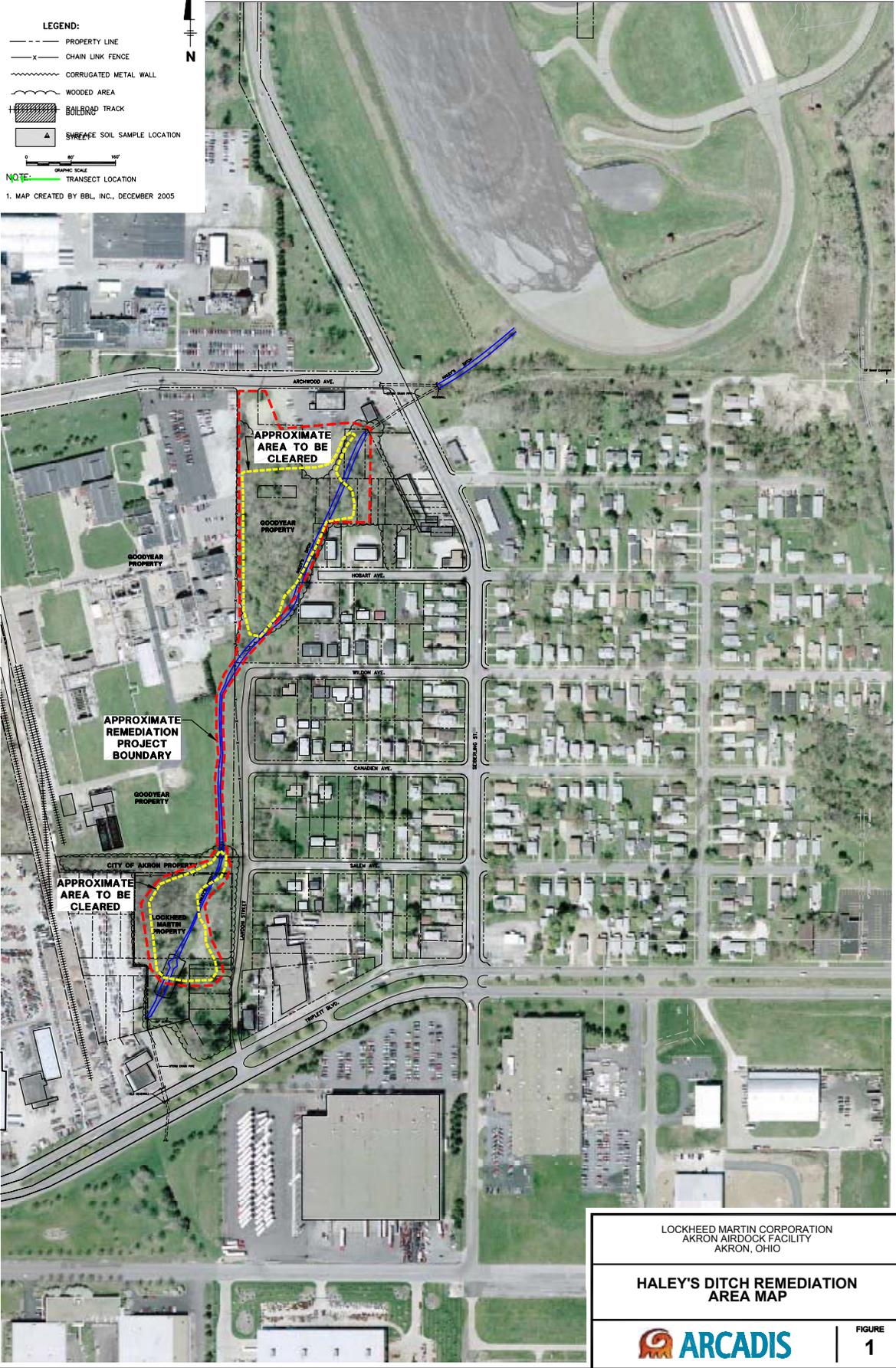
LEGEND:

- PROPERTY LINE
- x- CHAIN LINK FENCE
- ~~~ CORRUGATED METAL WALL
- WOODED AREA
- RAILROAD TRACK
- ▲ SURFACE SOIL SAMPLE LOCATION

GRAPHIC SCALE
0 50 100

NOTE:
--- TRANSECT LOCATION

1. MAP CREATED BY BBL, INC., DECEMBER 2005



LOCKHEED MARTIN CORPORATION
AKRON AIRDOCK FACILITY
AKRON, OHIO

**HALEY'S DITCH REMEDIATION
AREA MAP**

ARCADIS

FIGURE
1

Frequently Asked Questions

What will you be doing at Haley's Ditch during this cleanup?

A: The proposed cleanup plan calls for the removal and off-site disposal of soft sediment as well as soil that contains PCB concentrations greater than an U.S. EPA level requiring action. Contaminated soil removed from excavated areas will be replaced with clean soil. The plan also calls for restoring the excavated areas after the cleanup is completed.

Why are you doing this?

A: To remove PCB-contaminated soil and sediment to achieve a level that will not pose a risk to the health of people, animals or the environment.

What impact will this have on my neighborhood?

A: Lockheed Martin and its contractors will work to minimize the impact as much as possible. There will be increased truck traffic and noise from the actual cleanup activities. Once all the material has been removed, the area will be restored, and it will provide an enhanced attraction for the neighborhood.

When do you expect work to begin and end?

A: Work will begin in late June or early July and be completed by late fall 2009 if all approvals and permits are received as anticipated.

What is the proposed work schedule?

A: Work will be done Monday through Friday, 7 a.m. to 5 p.m. Work is not planned for weekends but may be necessary occasionally if there are weekday delays due to weather or other issues beyond Lockheed Martin's control. Work will not be done on federal holidays.

Are PCBs at Haley's Ditch dangerous to my family and me?

A: No. PCBs at this site are mixed with the soils up to three feet deep. It is unlikely that you would be exposed to them. There is also a fence around the areas that need to be cleaned up.

After this work is completed, will we be able to use the area?

A: The area will be enhanced and potentially available for public use.

What happens if I have a complaint?

A: Lockheed Martin wants to hear from you any time you have a question, concern or complaint. The Lockheed Martin representative is Cory Smith and may be reached at 330-796-2038 or cory.a.smith@lmco.com. Every effort will be made to return a call to you within 24 hours.

What does this mean to me as a property owner?

A: We have planned the work to minimize disruptions caused by traffic and noise. Once the project is completed, the area will be landscaped to include plants native to northern Ohio and hopefully create a small natural habitat for wildlife. Once this vegetation has had time to root and grow, this should visually enhance the neighborhood.

What is the likelihood that I have been exposed to PCBs over the years?

A: The primary exposure to PCBs at Haley's Ditch would be from eating the soil in the ditch, so that exposure to PCBs is unlikely.

What are PCBs?

A: Polychlorinated biphenyls, commonly known as PCBs, are mixtures of up to 209 individual chlorinated compounds. There are no known natural sources of PCBs. PCBs are either oily liquids or solids that are colorless to light yellow. Some PCBs can exist as a vapor in air. PCBs have no known smell or taste. Many commercial PCB mixtures are known in the United States by the trade name Aroclor.

PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. That is why they were used on the roof at the Airdock as a fire retardant. The manufacture of PCBs was stopped in the United States in 1977 because of evidence they build up in the environment and can cause harmful health effects. Products made before 1977 that may contain PCBs include old fluorescent lighting

fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils.

What are the possible health effects to people exposed to PCBs?

A: Skin conditions, such as acne or rashes, may occur in people exposed to very high levels of PCBs in the workplace or after accidental exposures. Studies of workers exposed to high levels of PCBs at work, over long periods of time, have shown changes in blood and urine that may indicate liver damage. PCB exposures in the general population are not likely to result in skin and liver effects.

The U.S. EPA and the International Agency for Research on Cancer have classified some PCBs as probable human carcinogens.

Why do you have to dig it up and haul it off?

A: That is the best way to remove the PCBs and restore and enhance Haley's Ditch so it can be used by the community.

Are there ways the PCBs could be cleaned up short of digging them up and hauling them off?

A: Unfortunately, there are no practical alternatives.

Doesn't hauling the PCBs from the site pose a risk?

A: There are risks associated with any type of cleanup work, but in this case the risk is very low. All trucks leaving the site will be lined and covered with a tarp when carrying PCBs. The tires of the vehicles will be washed off before they leave the site and the roadway cleaned up of any soils on a daily basis. All truck drivers are licensed and the trucks are inspected on a regular basis.

How many truckloads will be hauled from the site?

A: Approximately 1,000 dump truck loads, or about 20 per day when digging is in operation.

Have you considered using trains to haul this material to its final destination?

A: The volume of material is too small to ship by train and you would have to use trucks to get the material to the train.

Where will the PCBs be moved to?

A: Soils with PCB concentrations of less than 25 mg/kg will be placed into the licensed and permitted American Landfill in Waynesburg, Ohio. Soils with concentrations 25 mg/kg and above will be sent to the licensed and permitted EQ Landfill in Belleville, Michigan.

Are these licensed facilities?

A: Both of these facilities are licensed and permitted to accept soils containing PCBs.

Isn't hauling them to this facility just putting the problem in someone else's back yard?

A: No. Disposal in a controlled and permitted landfill is the best option available. The licensed disposal facilities are designed to contain wastes in a manner that protects people and the environment.

How will you ensure there are no future risks from the PCBs at the Airdock?

A: Lockheed Martin has reduced the risk of future contamination by installing a rubber membrane over the roof of the Airdock, coating the interior of the building, replacing siding on the lower part of the building, replacing rain gutters, and installing filters over storm drain surface openings. Lockheed Martin continues to operate the Airdock under an agreement with, and the supervision of, the U.S. EPA.

Who is paying for all this?

A: Lockheed Martin is paying for this cleanup.

Will the government be expected to reimburse Lockheed Martin?

A: No.

How much will it cost?

A: It is expected that the project will cost around \$8 million.

Contact Information

For more information, contact Lockheed Martin representative Cory A. Smith
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Ellet Branch Library
Branch hours: Monday - Thursday 10 a.m. - 8:30 p.m.
Friday 10 a.m. - 6 p.m.
Saturday 10 a.m. - 5 p.m.
Closed on Sunday

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