



United States
Environmental Protection
Agency



Health Risks Studied; Cleanup Plan is Next Step

Nease Chemical Site

Columbiana County, Ohio

December 2004

Introducing...

The Nease Chemical site has a new remedial project manager.

Mary Logan has spent almost 20 years with EPA in both Region 5 (Chicago) and Region 2 (New York). Mary has degrees in biology and environmental health sciences from the University of Chicago and University of Illinois respectively.

Contact EPA

If you have any questions, concerns, comments or want to be on the mailing list for news about the Nease Chemical cleanup, contact these EPA representatives:

Susan Pastor

EPA Community Involvement
Coordinator

(312) 353-1325 or (800) 621-8431,
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Mary Logan

EPA Remedial Project Manager
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As this project is being done in cooperation with Ohio EPA, questions can also be directed to:

Sheila Abraham

Site Coordinator
Division of Emergency and
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Ohio EPA Northeast District Office
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Cleanup of the former Nease Chemical property is one step closer today with completion of a process called a "risk assessment." U.S. Environmental Protection Agency and Ohio EPA have identified the pollution and its associated risks to people and the environment. The two agencies are considering options to agree on a final cleanup plan.

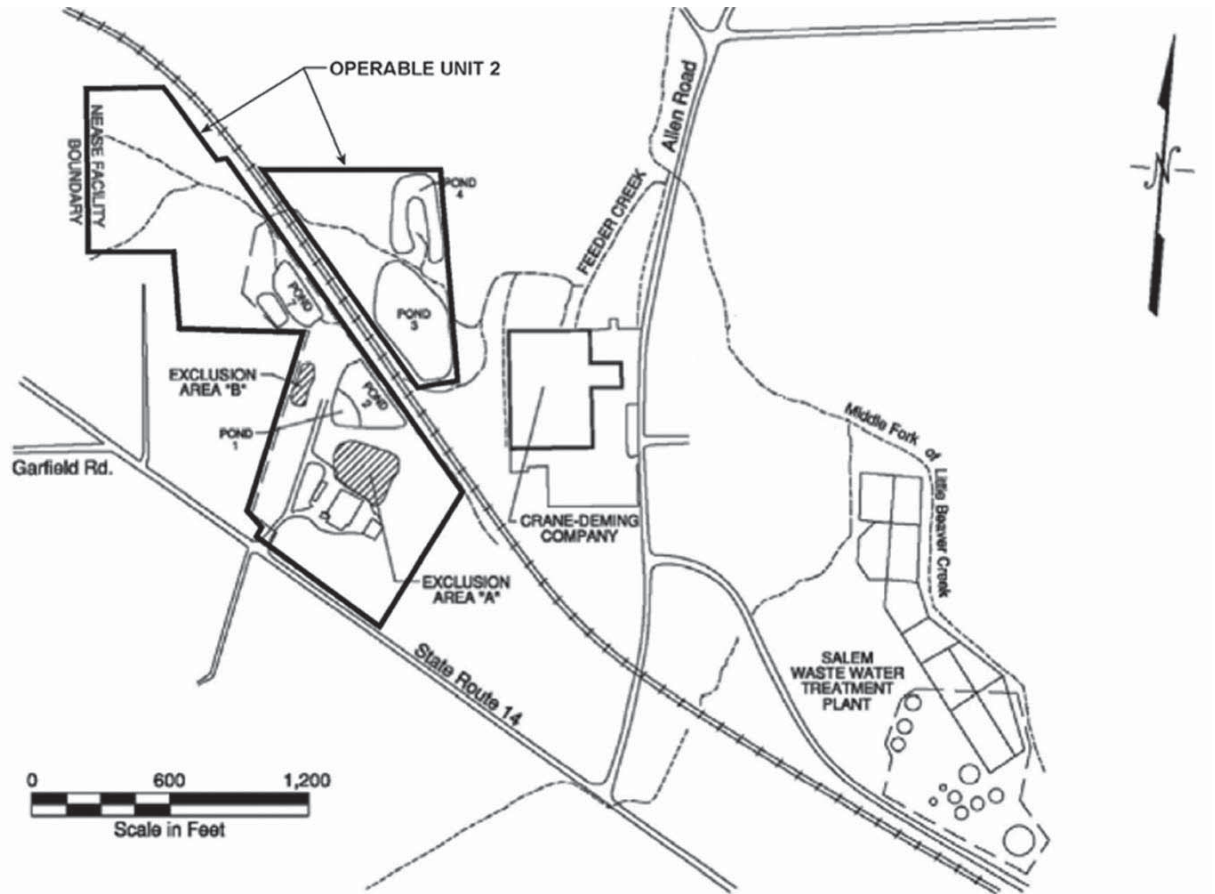
One of the main pollutants EPA found on the property is the chemical mirex (see page 3) in the ground water and soil, as well as in the Middle Fork of Little Beaver Creek, and in the fish that live in that creek. Other contaminants include volatile organic compounds, which are chemicals that evaporate easily. Ground water is a term for underground supplies of fresh water.

The recently completed risk assessment shows what could happen to people if the site is not cleaned up. The highest risk would be for people who drink polluted ground water (from wells close to the Nease facility) or eat fish caught in the creek. If cows drink from the creek or wade in it, the milk and beef from those cows could also be contaminated. People could also be exposed to pollution by touching dirt at the site or around the creek. There are no current risks to people living near the site because the worst contamination is confined to the Nease property, which is restricted to the public. There is some contamination in ground water, but nobody is drinking contaminated ground water today.

Health risks include an increased risk of cancer and other diseases, primarily from prolonged exposure to mirex and other pollutants. People who live or work in the area would be most at risk because they have a greater chance of coming into contact with contamination, not just once but consistently over a period of time. The less often people are exposed to the pollution, the lower the risk.

Earlier studies done by Ohio Department of Health had similar findings, and led the state to issue a health advisory against wading or swimming in parts of the Middle Fork of Little Beaver Creek. The state also issued an advisory against eating fish caught in that stream. The advisories are still in effect and nearby residents are encouraged to comply with them.

The Ruetgers Organics Corp., under EPA and Ohio EPA supervision, continues to study the pollution on the site. These studies include ground-water and air monitoring and extensive soil and sediment (mud) sampling on the site and in nearby areas. Ruetgers Organics Corp. is the current owner of the site.



*Nease Chemical site plan
(Not all of the Middle Fork of Little Beaver Creek is shown.)*

Next steps

Once all studies are completed, EPA and Ohio EPA will develop a proposed plan for cleaning up the site. The plan could be available for public comment as early as next summer.

Because pollution is spread over a large area, the site is divided into several sections, which EPA calls “operable units.” The proposed plan will treat each operable unit, or OU, as a distinct phase. It will recommend different treatment options for each unit, depending on the type and amount of pollution.

Dividing the site into OUs allows EPA and Ohio EPA to focus on the most serious contamination first. That means the first unit to be cleaned up will be OU2, which includes cleaning up soil and ground water. During OU1, in the mid-1990s, the area was stabilized to prevent sediment runoff and to catch contaminated ground water leaving the site. Contamination in the Middle Fork of Little Beaver Creek will be addressed at a later date.

Site background

The Nease Chemical Superfund site consists of 44 acres along state Route 14 two and a half miles northwest of Salem on the Columbiana-Mahoning county line. The site is surrounded by lightly developed land on three sides and an industrial plant on the northeast. The area is fenced to prevent access. Railroad tracks intersect the northern portion of the site along the outside edge of the fence.

Most of the site has been taken over by weeds and other plants. Trees border the eastern and western sides of the fenced area. The land just north of the fence is swampy, with a small stream called Feeder Creek running through it. Feeder Creek empties into the Middle Fork of Little Beaver Creek, which is north and east of the site.

Between 1961 and 1973, Nease Chemical produced various household cleaning compounds, fire retardants and pesticides – some of which included mirex. The company used unlined ponds to treat waste from the manufacturing process and hazardous substances. Hazardous substances

seeped into the soil and ground water from these ponds, as well as from buried drums that eventually leaked.

Surface water runoff from the waste treatment ponds flowed into creek tributaries that run through the site, causing pollution in the Middle Fork of Little Beaver Creek.

Site-related documents may be reviewed at:

U.S. EPA Region 5 Records Center

77 W. Jackson Blvd., 7th Floor
Chicago, Ill.

Ohio EPA Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio

Lepper Library

303 E. Lincoln Way
Lisbon, Ohio

Salem Public Library

821 E. State St.
Salem, Ohio

Certain EPA information, including this fact sheet, can be viewed electronically at: <http://www.epa.gov/region5/sites>.

What is mirex?

Mirex is an odorless, white, crystalline solid used to control fire ants and as a flame retardant in plastics, rubber, paint, paper and electrical goods. Mirex has not been manufactured in the United States since 1978.

Mirex breaks down slowly in the environment and may remain in soil and water for years. Although mirex is not likely to travel far through the soil and into ground water, it can build up in fish or other organisms that live in contaminated water. It can also build up in animals, or people, that eat contaminated fish.

Exposure to mirex occurs mainly from touching or eating soil or food that contains the chemical. The effects of mirex on people's health is not certain, but at high levels it may cause damage to the skin, liver, nervous system or reproductive system.

What is Superfund?

Superfund is the federal government's program to clean up the nation's most polluted hazardous waste sites. Superfund was created on Dec. 11, 1980, when Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act. This law created a tax on the chemical and petroleum industries that went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA was amended by the Superfund Amendments and Reauthorization Act on Oct. 17, 1986. Through this program, EPA cleans up places that pose a potential threat to people or the environment. The special tax was dropped several years ago and now Superfund is paid through EPA's general budget. In 2005, for example, the money allotted for Superfund projects is \$1.3 billion.

In most cases, EPA finds those responsible for the pollution and convinces them to pay for the cleanup. The federal government pays for cleaning up sites if it cannot identify a responsible party, or if the responsible party is unable to pay (for example, if the company is bankrupt). Community involvement is an important part of all Superfund cleanups.

EPA works closely with state, local and tribal governments, as well as local community leaders. Once a potentially hazardous waste site is reported to EPA, trained inspectors from EPA, the state, or tribal government do a preliminary assessment. During this short inspection, EPA tries to determine whether the site presents a hazard to human health and the environment. If necessary, a more detailed review of the site, called a site inspection, is required. This inspection enables EPA to gather information to score the site according to the hazard ranking system, which in turn determines whether or not the site should be added to the National Priorities List. Only sites on the NPL can be cleaned up using Superfund money.

At any time during the site assessment process, EPA may decide that the site poses an immediate threat to human health. In these cases EPA will do a removal action and eliminate the hazard. EPA, the state or tribal government will do a risk assessment at all NPL sites to determine the risk a site poses to human health and the environment. If an unacceptable risk exists, EPA will find a solution to make the site safe.



United States
Environmental Protection
Agency

Region 5
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NEASE CHEMICAL SITE: Health Risks Studied; Cleanup Plan is Next Step

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Updates or changes to the mailing list

If you or someone you know would like to be added to the mailing list for the Nease Chemical site, fill out this form and mail it to the address below or contact Susan Pastor (contact information on front page). If you prefer not to receive future correspondence about the Nease Chemical site, you can also use the form below or contact Susan Pastor.

U.S. EPA Region 5
Office of Public Affairs (P-19J)
77 W. Jackson Blvd.
Chicago, IL 60604

Add to the mailing list.
 Remove from the mailing list.

Name _____

Address _____

City/State/ZIP _____

*Affiliation _____

*Phone (Daytime) _____ *(Evening) _____

*E-mail Address _____

Items marked with (*) are optional.

Once you are on the mailing list, you will automatically receive information from EPA regarding the Nease Chemical site.