



No Further Cleanup Action Proposed for Yards, River

Ottawa Township Flat Glass Site

Naplate, Illinois

June 2008

Your opinions wanted

You can comment on EPA's proposed cleanup alternatives for the residential soil and Illinois River sediment areas at the Ottawa Township Flat Glass site. A public comment period will run:

June 16 – July 16, 2008

You can e-mail your comments to EPA Project Manager Kevin Adler at adler.kevin@epa.gov or fill out and mail the pre-addressed comment form inserted in this fact sheet.

Another opportunity to share your opinions, comments and questions about the proposed cleanup plan will be at the public hearing scheduled on:

**Tuesday, June 24
7 – 9 p.m.
Naplate Village Hall
2000 W. Ottawa Ave.**

Oral comments will be recorded at the hearing and you can also submit written statements.

Your comments are important. EPA may modify or pick another cleanup alternative based on public input.

More information

An administrative record containing official documents about the Ottawa Township Flat Glass site can be viewed at the **Reddick Library**, 1010 Canal St., Ottawa, or the **EPA Records Center**, 7th Floor, Metcalfe Federal Building, 77 W. Jackson Blvd., Chicago.

U.S. Environmental Protection Agency has concluded a previous soil cleanup action on two residential lots in Naplate should be sufficient to reduce the potential health threat from any arsenic found in area soil. EPA also found arsenic levels are low enough in Illinois River sediment (mud) that a cleanup project there is not justified. Arsenic was an ingredient of glass-making at the Ottawa Township Flat Glass facility, also known as Libby-Owens-Ford Plants 5 & 7, from 1907-1970.

An in-depth study called a "remedial investigation" of the arsenic levels in residential soil and river mud was conducted according to EPA's Superfund procedures. The Agency decided two "no action" alternatives proposed in the cleanup plan would protect people's health and the environment. The remedial investigation looked at the nature and extent of arsenic found in Naplate soil and Illinois River sediment and calculated actual or potential health risks. EPA experts found no unhealthy levels of arsenic in residential soil samples, except at two yards where the contaminated soil has already been removed. The arsenic concentrations in the Illinois River sediment were also discovered to be at levels that will not harm people or the environment.

The public can offer EPA their opinions on these recommendations through a comment period June 16 - July 16, 2008. EPA will also hold a public hearing on June 24. Based on comments and statements received by the public, EPA could modify its recommendations or choose another cleanup option (*see adjacent box for more information on how you can participate in this process*).

About the Ottawa Township Flat Glass site

The Ottawa Township Flat Glass (OTFG) site covers 228 acres and consists of Naplate residential areas, Plant #5 and Plant #7, former silica sand quarries, wastewater disposal areas and a 56-acre undeveloped parcel of land located on the north side of the Illinois River. It also includes additional former silica quarries and wastewater disposal areas across from the main facility on the south side of the river.

EPA divided the OTFG site into four portions called "operable units" or OUs for ease of investigating and cleaning up the site. These include: OU1 Residential Soils, OU2 Illinois River Sediment, OU3 Groundwater and Source Areas south of the river, and OU4 Groundwater and Source Areas north of the river. This proposed cleanup plan is for OU1 and OU2 only. EPA plans to release a proposed cleanup plan for OU3 and OU4 within the next year.

The manufacturing plant has been making flat glass products since about 1907. Arsenic trioxide was a minor ingredient in the manufacturing process from 1907 until 1970 when its use was discontinued. The final step in the

flat glass manufacturing process involved grinding and polishing the cast glass with fine silica sand and water.

The process generated waste in the form of a slurry consisting of mostly sand, water and glass particles containing arsenic, which was discharged into the nearby former quarries for settling of solids. Overflow water went into the Illinois River. The slurry waste in the settling areas contains arsenic and is a potential source of contamination in local area soil, sediment and ground water (underground supplies of fresh water). Naplate municipal wells are currently not affected by arsenic.

Pilkington North America Inc. known as PNA purchased the glass manufacturing facility in 1986, about 16 years after the use of arsenic in the glass-making process was discontinued. However, EPA considers PNA to be a potentially responsible party for area arsenic pollution.

Site investigation

Soil

PNA conducted soil sampling in Naplate residential areas in late 2002 and discovered high arsenic levels in both shallow (0 to 6 inches) and deeper (greater than 12 inches) soil in two residential yards near the factory. It was later determined arsenic-tainted material had been removed from the facility and used to fill in low spots on the lots so that a home could be built on one of them.

PNA expanded the residential soil sampling program in 2003 to include additional testing at residences located very near the area of the two affected properties. The residential soil-sampling program was expanded again in fall 2005 to cover most or all of the homes or lots in the village. More than 2,000 soil samples were taken from about 210 Naplate yards. The sampling project indicated the highly contaminated fill material had not been placed on any other lots. Arsenic levels in the residential soil were found to be within the normal arsenic levels in north central Illinois soil.

Illinois River

PNA took sediment and water samples from the Illinois River around the plant property in 2001 and 2002. EPA determined the water quality was unaffected by arsenic from the site. Also, the only sediment area that contained arsenic above normal levels is located next to the site on the north edge of the river.

Source Areas and Ground Water

PNA installed a number of ground-water monitoring wells in 2002-04 in and around the site and has sampled nearby private wells to determine the nature and extent of ground

water contamination beneath the area. Results indicate there are two underground aquifers of immediate concern below the site. An aquifer is a large pool of underground water. The upper aquifer, the St. Peter Sandstone, is a regional unconfined aquifer that has been affected by arsenic contamination from the site. The lower aquifer, the New Richmond Sandstone, has not been contaminated by arsenic. Between the two aquifers lies the Shakopee Dolomite, a 150-200-foot thick rock layer that forms an effective barrier between the St. Peter Sandstone and New Richmond Sandstone.

Arsenic levels in the St. Peter Sandstone range from a few parts per billion at the edges of the contaminated plume of water to several parts per million in the center, about 800 times higher than the safe drinking water standard. The St. Peter Sandstone, however, is not currently used for drinking water. The Naplate municipal well draws water from the New Richmond Sandstone aquifer, which is not contaminated.

Previous cleanup work

PNA, under EPA oversight, began an emergency cleanup called a "time-critical removal action" at two residential yards in December 2003, excavating soil that contained elevated arsenic levels and disposing of the earth in an off-site landfill. While this work was being done the residents were temporarily relocated. PNA backfilled the excavations with clean soil and reseeded the lots. The removal action was completed in July 2004. PNA also hired contractors to clean up arsenic-tainted dust inside one of the homes in 2006.

Risks to people and the environment

Health risk studies were done on residential soil in Naplate, Illinois River sediment and ground water.

Human health risk calculations were performed for the 210 Naplate residential areas based on the arsenic sampling results, and the cancer risks for both adults and children were found to be low. For the river sediment with above-normal arsenic levels both human cancer risks and the risks of hurting wildlife were also low.

The potential cancer risks due to elevated arsenic levels in ground water are very high. Should this water be used for drinking purposes, it would pose an unacceptable risk to human health. EPA is calculating actual or potential human health risks and is studying cleanup methods for the ground water. The Agency plans to release a separate proposed cleanup plan for site ground water in mid-2009. In the meantime, Naplate residents are safe because the village draws its drinking water from an uncontaminated source.

No action option proposed

EPA's proposed cleanup plan calls for no further action at the residential soil operable unit of the OTFG glass site because a previous cleanup action (excavation and off-site disposal of contaminated soil) eliminated the need for additional work. EPA found remaining arsenic levels pose a low actual or potential threat to human health or the environment. EPA notes that not all of the arsenic-contaminated soil was dug up from one of the two residential lots because removal would have jeopardized the structural soundness of the house and garage built on top of the contaminated soil. EPA will work with PNA to place institutional controls on the affected property. That will ensure if the buildings are removed in the future, PNA or any successor corporation will excavate the contaminated soil from the yard and properly dispose of it off-site.

EPA's proposed plan also calls for no action on the Illinois River Sediment operable unit because contaminant levels documented in the river mud next to the site pose a low actual or potential threat to human health or the environment.

Property reuse

PNA has taken soil samples from the 56-acre undeveloped parcel that is considered part of the OTFG site and results show the soil is not affected by arsenic. However, the ground water beneath the site does contain high levels of the chemical. The property is eligible for reuse, although EPA projects that at a minimum, ground water-use restrictions may have to be placed on the land to protect human health and the environment.

Next steps

In consultation with state partner Illinois EPA, EPA will review comments received during the public comment period June 16 – July 16 and the public hearing June 24 before making a final decision on a cleanup plan for residential soil and river sediment in Naplate.

When a decision is made it will be published in a document called a "record of decision" (ROD) and a notice will be published in a local newspaper so residents can review it at the information repositories for the site.



Aerial view of the OTFG site. Naplate residential areas are at the top of the frame, and the Illinois River is at the lower right.

Ottawa Township Flat Glass Site: No Further Cleanup Needed for Soil, Sediment

FIRST CLASS

United States
Environmental Protection
Agency
Region 5
Superfund Division (P-19J)
77 W. Jackson Blvd.
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No Further Action Proposed for Naplate Soil, Illinois River Sediment Cleanup

Proposed Cleanup Plan
Comment Period June 16 – July 16
Public Hearing – June 24
(details inside)

EPA contacts

The following EPA team members can be contacted for more information or questions about the Ottawa Township Flat Glass site:

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**Ottawa Township Flat Glass Site
Comment Sheet**

Fold on Dashed Lines, Tape, Stamp, and Mail

Name _____

Address _____

City _____ State _____

Zip _____

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| Place Stamp Here |
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