
Sampling Results Released; Risk Assessment Begins

South Minneapolis Neighborhood Soil Contamination Site
Minneapolis, Minnesota September 2006

Open houses scheduled

EPA will hold open houses at three different locations in September. The purpose of these sessions is to give residents an opportunity to talk to EPA representatives one-on-one about the site and to ask any questions about the sampling results. You may stop by during the hours listed below, no appointment is needed. The meeting dates and locations are:

Tuesday, Sept. 19, 6 – 8 p.m.

Powderhorn Park
3400 15th Ave. S.

Wednesday, Sept. 20, 6 – 8 p.m.

YWCA
2121 E. Lake St.

Thursday, Sept. 21, 6 – 8 p.m.

Franklin Avenue Safety Center
1201 E. Franklin Ave.

Risk assessment session

On **Tuesday, Sept. 26, from 7 to 9 p.m.** EPA will hold a meeting to discuss the health risk assessment process and answer questions you may have on this phase of the cleanup. The meeting will be at the YWCA, 2121 E. Lake St., Minneapolis.



U. S. Environmental Protection Agency and its contractors have completed the latest round of arsenic sampling at about 3,000 properties this summer and are in the process of sending out results. EPA contractors took an average of two samples per property looking for evidence of arsenic soil contamination. Many properties in the South Minneapolis neighborhood were contaminated by pollution coming from the nearby former industrial area known as the CMC Heartland Lite Yard site.

EPA had hoped to get results within 60 days of a property being sampled. EPA is working through some delays in getting results from the laboratory and in completing reviews of the results. EPA has to make sure the sample results are usable and the laboratory followed all the appropriate steps. This review is called validation and is a normal part of our process.

EPA began sending out results letters in August. The Agency will continue to send out results as soon as they become available. All sampling results should be mailed out by early September.

In an effort to protect the health of neighborhood residents, EPA requested the sampling contractor first review and report soil arsenic results for any samples above the 95 parts per million level. As you may recall, the 95 parts per million (ppm) level is the threshold for taking some safety precautions to prevent arsenic exposure. In late August EPA received preliminary sampling data indicating more than 130 properties in the neighborhood may contain arsenic in the soil above the 95 ppm level.

Removal activities continue

As of mid-August, EPA had removed soil from 65 properties with arsenic concentrations exceeding the action level of 95 ppm. Removal activities involve excavating the unpaved spots on each property to a depth of 12 inches in lawn areas and 18 inches in garden and play areas. The arsenic-contaminated soil is disposed of off-site at a licensed landfill.

As additional properties are identified with excessive arsenic levels, they are being scheduled for cleanup. EPA and its contractors will be starting new cleanup projects in September and continue as long as the weather permits. Suspended cleanup work will resume next spring.

EPA continues to keep the community informed about the arsenic situation by holding frequent meetings. Another round of open houses and informational meetings is scheduled in September (*see adjacent box*). EPA will also continue to keep you informed through additional updates like this one. A language preference sheet is included with this fact sheet. If you want EPA updates in another language, please complete this form and return it to Cheryl Allen at the address listed on the last page.

Risk assessment process begins

Health experts have begun the process of determining how much health risk the arsenic contamination poses to neighborhood residents. EPA is holding a public meeting to discuss the risk assessment in more detail and answer questions you may have. The meeting will be Sept. 26 from 7 to 9 p.m. at the YWCA, 2121 E. Lake St.

EPA studies health risks based on how dangerous the pollutant is and how much people are exposed to the contamination. EPA's goal is to protect everyone who could come in contact with arsenic contamination, especially children, women of childbearing age and the elderly.

The risk assessment is part of a larger study that EPA calls a "remedial investigation." It is a four-part process to estimate the chances that contact with arsenic will harm people now or in the future. This process gives us numbers that show how great or small the risks may be. It also points to who is at risk, what is causing the risk and how sure we are about the conclusions. Risk assessment results are used to determine whether any cleanup is necessary, what level of cleanup is necessary and to evaluate health risks associated with the various cleanup options. The four steps of a risk assessment include:

- Data collection and evaluation
- Exposure assessment
- Toxicity assessment
- Risk characterization

At this site, we are primarily concerned with collecting soil samples because arsenic contamination was carried through the air from the CMC industrial site and settled on the ground. During the data collection and evaluation step, EPA may also collect other types of samples such as indoor dust and any other things that might contain arsenic. From these samples we try to find out what chemicals are present and how much. You can help us find out where chemicals might be and how they got there. For instance, you may have seen some dumping activity or know about the history of a property in the study area. This type of information can help us get better samples.



The next step of the risk assessment is called exposure assessment. EPA uses the data collected to find out how much arsenic people may be exposed to. People must come in contact with the arsenic through breathing, touching or swallowing to be at risk. The amount of

exposure depends a lot on how much arsenic is present, who might be exposed and how they are exposed. For instance, children playing on patches of bare dirt or people eating garden vegetables grown in contaminated soil may be more at risk than other residents. During the exposure assessment families can tell us about their normal activities so we can determine their exposure. Your assistance will help us estimate the highest exposure anyone is likely to receive in the neighborhood.

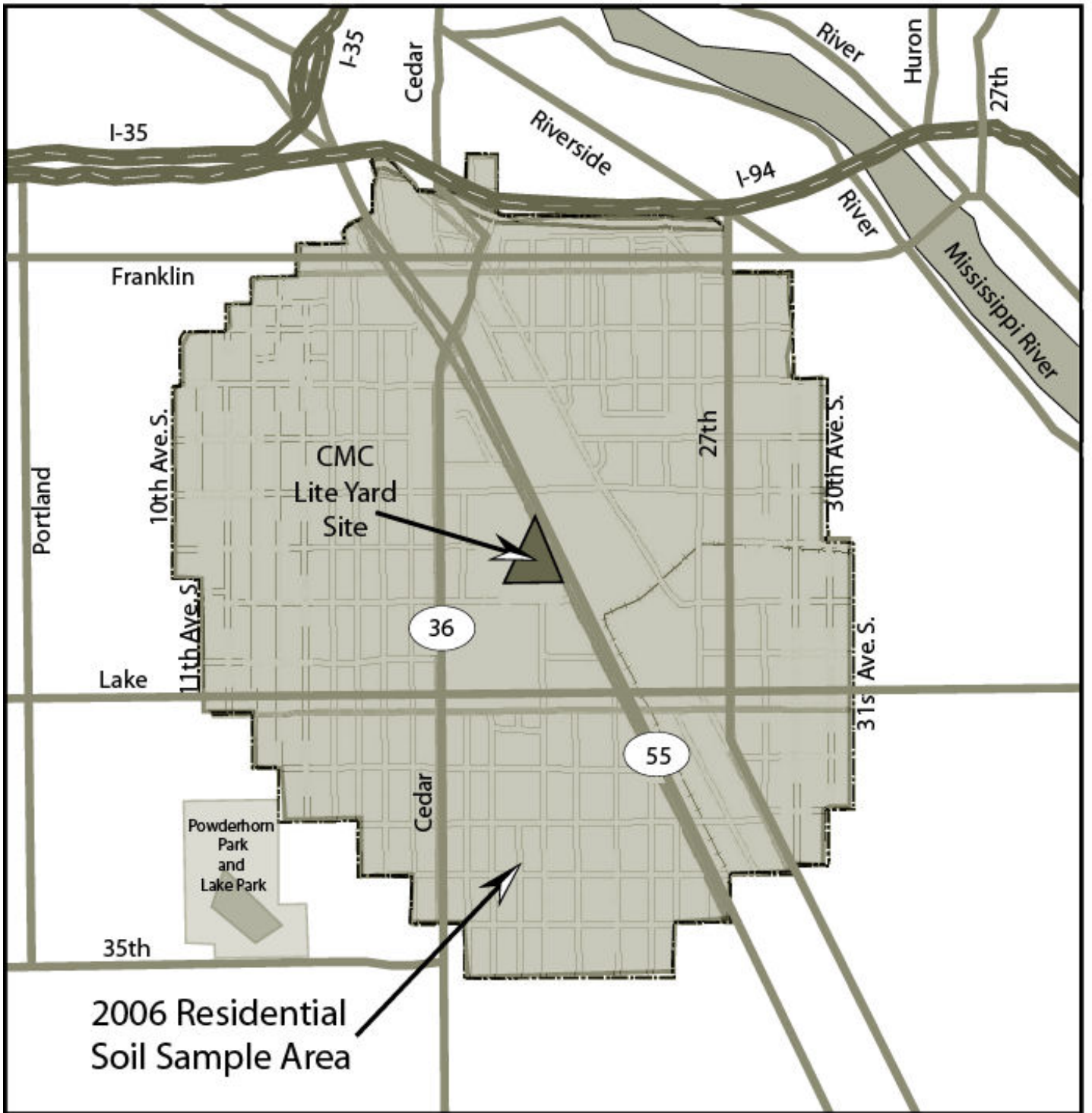
During the toxicity assessment phase, EPA learns about which illnesses or health problems may be caused by arsenic exposure. Health experts will determine at what dose of arsenic harmful health effects can occur. This is the same as saying how much arsenic does it take to cause illness. This step generally does not involve finding people who actually suffer from health problems caused by pollution. EPA's Superfund program is more concerned with the potential health effects from contamination and does not require actual illnesses to be present in the population. This phase largely involves looking at the available scientific studies on the chemical of concern.

Risk characterization, the final step of the risk assessment process, sums up everything. It identifies what chemicals are posing the risks and states health risks in a statistical probability, such as "one in a million." The risk characterization also states how confident EPA is about the results. Since some uncertainty about risk estimates is unavoidable, we build in a large margin of safety to prevent underestimating risks. These safeguards are intended to protect the exposed public.

Risk assessment is not an exact science. While EPA tries to estimate health risk as accurately as possible, there are many sources of uncertainty in the calculations. Exposure is predicted based on computer models and assumptions about how people living near a Superfund site might come in contact with harmful substances. The results of animal studies on the effects of chemicals are useful but are also controversial and open to interpretation. EPA must make policy decisions on how to deal with these uncertainties. In general, EPA uses assumptions and models that may overestimate risk in order to make sure its decisions protect the health of the largest number of people.

Risk management

The process of using the results of a risk assessment to make decisions at a Superfund site is known as "risk management." The results of the risk assessment help EPA to decide whether to undertake a cleanup at the site. The results are also used to develop a final cleanup level for the site.



For more information

For general questions and community-related information about the site, contact Cheryl Allen, EPA community involvement coordinator. For technical information about sampling and cleanup work, contact Tim Prendiville, EPA remedial project manager.

Cheryl Allen

Community Involvement Coordinator
(312) 353-6196
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Tim Prendiville

Remedial Project Manager
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prendiville.timothy@epa.gov

EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604
toll-free (800) 621-8431, 9 a.m. to 4:30 p.m. weekdays

Additional site-specific documents as well as general information about the EPA Superfund program are available at these official information repositories:

Green Institute
2801 21st Ave. S.
Suite 100
Minneapolis

City of Minneapolis
Police Department
Attn: Carla Nielson
1201-B E. Franklin Ave.
Minneapolis

Native American
Community Clinic
Attn: Gladys Chosa
1213 E. Franklin Ave.
Minneapolis

Sustainable Resources
Association
1081 10th Ave. S.E.
Minneapolis

Web: www.epa.gov/region5/sites/cmcheartland/



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

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