South Minneapolis Neighborhood Soil Contamination Site
&
Chicago – Milwaukee Corporation Heartland Partners Lite Yard Site (CMC)

FREQUENTLY ASKED QUESTIONS
September 2006
(updated 5 Jun 07)

Background
The CMC Site at Hiawatha Avenue and 28th Street East in South Minneapolis was formerly used for pesticide manufacturing that utilized sodium arsenate and/or lead arsenate beginning in the early 1940's. Operations at the facility ceased around 1968. A Remedial Investigation of the CMC Site (Site) overseen by the Minnesota Department of Agriculture (MDA) documented high levels of arsenic contamination in the soils from the soil surface to the water table at approximately 25 feet below ground surface at the site.

CMC Site Cleanup
A Response Action at the Site involved the excavation of over 62,000 cubic yards of soil. A large portion of the excavated soil was stabilized for landfilling at a MN landfill. The upper four feet of soil within the finished site grade met cleanup goals. A large area of contaminated soil in the former spill area was excavated to a depth of approximately 25 feet. Following the response actions an office/warehouse and parking lot were constructed in 2005-2006. Ground water monitoring by the present landowner continues with MDA oversight. Ground water contamination from the Site extends approximately 3 blocks to the SW of the site, and does not affect a potable aquifer and is not migrating towards the Mississippi River.

Residential Property Cleanups
In 2001, a soil investigation in the residential neighborhood to the northwest of the site by the MDA and Minnesota Department of Health (MDH) documented random concentrations of arsenic above natural background levels in the soil. The sampling area was later expanded by the Environmental Protection Agency (EPA) with assistance from the MDA from 2004 through 2006 to include the residential neighborhoods within approximately three-quarters of a mile around the CMC Site. To date approximately 4000 residential properties have been sampled for arsenic. Of those properties approximately 200 residential properties exceeded an acute health level (95 parts per million) of which approximately 100 were cleaned up (soil removed) by the EPA, as of 2006. The majority of the remaining 100 residential properties are planned to be cleaned up in 2007, with the remainder to be cleaned up in 2008. Residential cleanups involve the removal of the upper 12-18” of soil which is then backfilled with clean topsoil. Further soil cleanups of residential properties are pending a review of the latest soil sampling results.

What is arsenic?
Arsenic is a naturally occurring element widely distributed in the earth's crust. In the environment, arsenic is combined with oxygen, chlorine, and sulfur to form inorganic arsenic compounds. Arsenic in animals and plants combines with carbon and hydrogen to form organic arsenic compounds.

Inorganic arsenic compounds are mainly used to preserve wood. Copper chromated arsenic (CCA) is used to make "pressure-treated" lumber. CCA is no longer used in the U.S. for residential uses; it is still used in industrial applications. Organic arsenic compounds may be used as pesticides, primarily on cotton plants.[1]

For more information on arsenic and related health issues see: http://www.atsdr.cdc.gov/tfacts2.html and the MDH staff listed below.

Potential Sources of Arsenic

While arsenic is a natural occurring element in low concentrations, the primary source for high concentrations of arsenic in South Minneapolis was thought to be the former CMC Site. This is why the residential property investigation began and was expanded based on wind deposition patterns originating from the Site. EPA, MDA and MDH staff continue to review soil analytical results to better determine if the Site is the only potential source of arsenic, and the extent of impacts. Other sources could be residential use of pesticides containing arsenic in yards and gardens, lumber treated with copper chromium arsenate (CCA), or other sources.

What is a safe level of arsenic?

Any physical or health risk from arsenic depends upon the concentration of arsenic one is exposed to, how long the exposure lasts and how the exposure occurred. Simply having arsenic in one's yard does not equal an exposure. Ingestion is typically of most concern, but dermal or inhalation should also be minimized. Personal habits to avoid or minimize exposure include maintaining a healthy lawn cover to reduce contact with any contaminated soil, washing and peeling of vegetables grown in potentially contaminated soil – especially root vegetables – prior to eating or cooking, washing of hands after working or playing in the soil, and removal of shoes worn in areas of contamination prior to entering one's home.

What will the residential cleanup goal be for arsenic?

The emergency cleanups of residential properties by the EPA are presently based on an acute level of 95 parts per million (ppm). While the local naturally occurring background level for arsenic has not been determined it is anticipated to be somewhere between ten (10) and seventeen (17) ppm. The actual residential cleanup goal for arsenic in South Mpls is still under review by the EPA and MDH, but can be anticipated to be above the naturally occurring background level and below the acute level used for the emergency cleanups.

Why is the EPA not prioritizing soil sampling of properties with children?

The 2006 residential soil sampling project did not segregate out properties with children for priority sampling. Instead the EPA felt that a uniform and consistent sampling plan of going door to door, block by block would be the most efficient approach to sample all properties as soon as possible. Also, because of the transient nature of some neighborhoods, segregating out homes with children could result in newly arrived children not being sampled, or sampling of properties where children had recently moved out. Day care centers, schools and parks were included in the sampling effort.

What is the MDA or EPA doing?

The MDA and the EPA completed the sampling of approximately 3000 residential properties in South Mpls during May-June 2006. The results of this major soil sampling project were provided to property owners within approximately 90 days of the sampling. This brings the total residential properties sampled to about 4000. The results of the soil sampling will be reviewed by the EPA and MDA to determine if a pattern can be found that can be used to determine where high levels of arsenic may be found, and aid in determining a source or sources of the arsenic.

What is the status of the neighborhood being listed on EPA's National Priority List (NPL)?

The MDA requested that the EPA consider adding the Neighborhood to the NPL in 2004. This request included the Governor's written support to the EPA. While the process to list a site is long and requires several steps, it is progressing. The EPA proposed listing the site on the NPL in September 2006. Once proposed for listing there is a 60 day public comment period. As the status of the process changes, updates will be provided.

Will the EPA be conducting a Risk Assessment & how does the public become involved?

The EPA is conducting a Risk Assessment as a part of the Remedial Investigation process. The Assessment is underway, but not completed at this time. The EPA is conducting community meetings to update residents on the status and what is involved in the process. To be a part of the process it is recommended that concerned residents and community or neighborhood groups request to be placed on the EPA's mailing list for public comment periods and updates. See below for EPA contact information.

Will the MDH or the EPA conduct a Health Study or Health Consultation & what is the difference?

The MDH is working on an updated Health Consultation. The Health Consultation may be released at a joint community meeting with the EPA as a part of the EPA's Risk Assessment update. The difference between a Health Study and a Health Consultation is that a Health Consultation compiles environmental data and assesses the possible exposure routes, it also describes toxic effects of contaminants of concern; a Health Study is an investigation of peoples' exposures to toxic substances and associated effects on the body.

Should I get tested for arsenic exposure?

MDH is not encouraging individuals to get tested for arsenic at this time. Because arsenic is a common environmental element, it is found in food items at very low concentrations. If you decide to get tested for arsenic, it is likely that low concentrations of arsenic will be found in human hair, blood, and urine samples due to dietary sources. Collection and interpretation of human biological arsenic data should be conducted by a trained professional familiar with environmental arsenic investigations such as an occupational doctor.

Where do I get additional information?

Questions regarding EPA's Risk Assessment, soil analytical results, or future residential soil sampling plans should be directed to the EPA staff persons listed below.

Questions regarding MDA's cleanup project at the former CMC site should be directed to the MDA staff persons listed below.

Questions regarding MDH's Health Consultation, health risks or health concerns should be directed to the MDH staff persons listed below.

Contacts

MN Dept of Agriculture
For more information: http://www.mda.state.mn.us/incidentresponse/cmcheartland.htm

Project Manager	Robert Anderson	651 201 6632
Technical Analyst	Cathy Villas-Horns	651 201 6697
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Environmental Protection Agency
For more information: http://epa.gov/region5/sites/cmcheartland

Current Residential Cleanups	Sonia Vega	651 296 7361
Overall Soil Investigations	Tim Prendiville	312 886 5122
Community Affairs	Cheryl Allen	312 353 6196

MN Dept of Health

	Rita Messing	651 201 4916
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City of Minneapolis

	Tom Frame	612 673 5807

[1] Agency for Toxic Substances and Disease Registry, ToxFAQs for Arsenic, September 2005

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