

Facts about...



Brainerd Foundry Superfund Site

Minnesota Pollution Control Agency

Overview

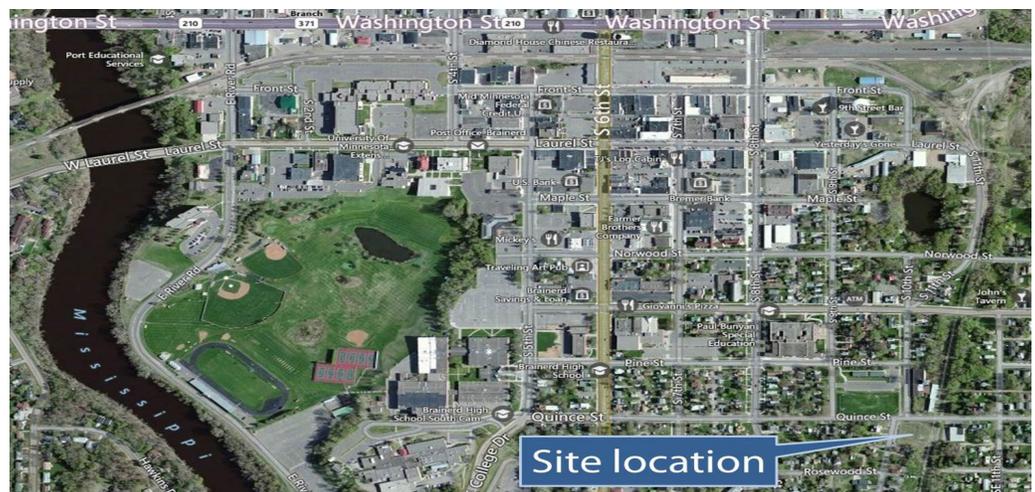
This Minnesota Pollution Control Agency (MPCA) fact sheet on the Brainerd Foundry Superfund Site will:

- Summarize the site's historical and investigation activities
- Discuss risks to human health and the environment that may be present
- Describe proposed cleanup action, identified in a Final Focused Feasibility Study (FFS), dated October 2014

More information on all cleanup alternatives are described more thoroughly in the FFS, prepared by Terracon Consultants, October 9, 2014.

Site location

The Site is located at 801 South 10th Street in Brainerd, southeast of the intersection of Quince Street and South 10th Street. The map on this page shows the general location of the Site. Land zoning in the Site vicinity consists of mixed residential and commercial/industrial uses, although the immediate Site vicinity is primarily residential. The Site is currently vacant, except for a chain link fence which demarcates an area of soil excavated in 1986 and 1996.



Site history

• Operations:

Casting of brass and bronze parts from molten metal began at the Site in 1925. During the first few decades of operation, the majority of parts produced by the Foundry were used by the railroad industry for repairing steam locomotives and rail cars. A primary Foundry product was brass journal bearings used on the axles of rail cars. To help reduce operational friction, the bearings were usually coated in a thin layer of lead or tin. In later years, the Foundry's output shifted from brass and bronze parts to parts made of cast iron.

The melting of metal feedstock (brass, lead, tin, etc.) in the Foundry's furnaces generated metal particles which exited the Foundry through the smokestack. Once outside and airborne, the metal particles settled out of the air onto the land, with a large portion of the emissions landing on or near the Foundry property.

Site history continued

Air quality regulations associated with the Clean Air Act required the Foundry to install pollution control equipment in 1970. Smokestack filters were installed which resulted in a 95% decrease in airborne metals emissions.

Foundry production ceased during the fall of 1981, and the owners filed for bankruptcy in early 1982. During the foreclosure, the Economic Development Administration (EDA) of the U.S. Department of Commerce took ownership of the property owing to a 90% guaranty for a loan the Foundry had acquired from a private bank.

• Environmental assessment activities:

Two citizen complaints received by the MPCA in 1983 led to investigations that discovered electrical equipment in the Foundry and on the adjacent railroad right-of-way that was leaking polychlorinated biphenyls (PCBs). The foundry buildings were demolished by mid-1985, and a limited excavation cleanup was completed in early 1986. An additional 640 cubic yards of residual lead-impacted soil, identified during a follow-up assessment to determine if additional soil cleanup was necessary, was removed from the Site in 1996.

Additional assessments were conducted from 2006 to 2013 to delineate vertical and horizontal soil impacts on off-Site property (outside of the area excavated in 1986 and 1996 and on adjacent property). The investigations identified several sampling locations where lead was detected at concentrations exceeding the Tier 1 soil reference value (SRV). Other contaminants (notably arsenic chromium, mercury, and polycyclic aromatic hydrocarbons (PAHs)) were detected during these investigations; however, the detections correlated to locations where lead was detected at a concentration exceeding the SRV, and lead was determined to be the primary contaminant of concern for the Site.

Three monitoring wells were installed on-Site in 1996 including one well in a shallow perched water zone and two wells in the apparent water table. Two rounds of groundwater samples were collected. The MPCA requested the installation of a third water table well along with additional groundwater sampling; however, the EDA declined to complete those actions.

Summary of Site risks

The contaminant of concern is primarily lead in soil. Soil with lead concentrations exceeding the SRV has been found from 0 to 3 feet below grade (in “accessible” soil). An existing chain link fence delineates where soil has previously been excavated from the former foundry. However, additional assessment has identified several “hot spot” areas to the north, east, south, and west of the excavation area with lead soil concentrations exceeding the SRV. These areas are not secured and provide a high risk for direct contact with contaminated soil.

Path forward - proposed remedial actions

In June 2015, the MPCA plans on excavating lead-contaminated soil from eight areas surrounding the former foundry. The objective of the excavation is to eliminate the risk associated with lead in the soil by eliminating the direct contact pathway.

The identified areas, based on previous analytical data, will be excavated up to four feet below grade. The selected remedial action will also address other contaminants (arsenic, chromium, mercury, PAHs) identified during previous investigations, and will provide the highest combined short-term and long-term effectiveness. Additional information regarding the remedial action is provided in the 2014 FFS prepared by Terracon.



What's next?

The MPCA will host a public informational meeting on May 19, 2015 at First Lutheran Church in Brainerd. The agency will take public comments on the information provided until June 2, 2015. Public comments should be mailed to

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MPCA staff will review these comments and make a final cleanup decision, which will be documented in a Minnesota Decision Document. Construction of the cleanup will then begin, in accordance with the Record of Decision.

What's next?

For more information about the Brainerd Foundry Superfund Site or for files about the Site, including the October 2014 Focused Feasibility Study, contact Jennifer Jevnisek (Project Manager) at 651-757-2181 toll-free/TDD 800-657-3864 or by email at jennifer.jevnisek@state.mn.us.

