

Get the Facts: Manganese in Southeast Chicago

Manganese was detected in the air on the far southeast side of Chicago. The likely source is one or more companies that store and handle manganese. This fact sheet was prepared to provide information on manganese, its health effects and on steps being taken by the City to address the situation.

What is manganese?

Manganese is a naturally-occurring substance. It is used to make steel and is found in several consumer products. It is also an essential nutrient and a small amount of it in the diet is important to stay healthy. But, at excess amounts it can be neurotoxic (harmful to the brain).

How can someone be exposed to excess amounts of manganese?

Workers whose jobs put them in contact with manganese regularly may be exposed to excess amounts. Residents who live near places where manganese is stored or handled may also be exposed to increased amounts. This can occur when manganese dust is blown or tracked off-site and into the surrounding area.

What health effects can occur in workers and residents after being exposed to excess amounts of manganese?

Studies of workers have shown that prolonged exposure to high amounts can result in a number of health effects, one of the most serious of which is manganism, a disease similar to Parkinson's. Less is known about the health effects among residents who live near facilities that use manganese. Of the few studies done, the investigators concluded that manganese is linked to lower IQ scores, tremors and poor balance – findings that were generally detected only through specialized research tests.

When and how was manganese detected in the air on the southeast side?

In November 2013, in response to concerns about petcoke, KCBX (10730 S. Burley Avenue) was required to install air monitors at its site. This air monitoring began in February 2014. Results showed elevated levels of manganese. S.H. Bell, located at (10218 S. Avenue O.), was implicated as a source of the manganese. As a result, both the City and the United States Environmental Protection Agency required S.H. Bell to install air monitors. Results of this air monitoring confirmed that manganese dust was blowing off-site.

Does S.H. Bell store and handle manganese? Are there other companies that store and handle manganese?

Yes. S.H. Bell does store and handle manganese. Watco Companies (2926 E. 126th Street) also stores and handles manganese. As discussed below, efforts are underway to identify other companies that store or handle manganese on the southeast side.

What steps are being taken by the City to address this issue?

The following steps are being taken by the City to address this issue:

- Under its Bulk Solid Material Regulations, the City required S.H. Bell and Watco Companies to put into place more stringent dust control measures. To ensure these companies are complying with these requirements, the City is conducting regular inspections.
- The City has hired a consultant to identify additional companies that store and handle manganese on the southeast side.
- The same consultant will be conducting a study to determine potential health impacts of manganese on residents living near S.H. Bell. This will be done by taking soil samples and testing these samples for manganese and setting-up air monitors and testing the air for manganese in neighborhoods near S.H. Bell. These results will be used to determine the potential amount of manganese residents may be exposed to. This information will in-turn be used to assess potential health impacts on residents.
- Once the consultant completes its study, the City will review the findings and determine whether there is a need for additional regulations on the storage and handling of manganese to further protect the health of residents.

What should I do to reduce my exposure to manganese dust?

Try to limit the amount of time you spend outdoors, especially in the vicinity of S.H. Bell or Watco Companies, and keep windows closed, especially during dry and windy days when dust is more likely to be present. Since dust may settle on floors and surfaces in your home, regularly clean your floors and surfaces to keep them free of dust. And since dust may track-in to your home, make sure all family members remove their shoes before entering your home.

What should I do if I'm experiencing an illness or other health issue I believe is due to manganese?

If you or a family member is experiencing an illness or other health issue you believe is due to manganese, bring this to the attention of your doctor. If your doctor is unsure of how to address your concerns, have them call the Chicago Department of Public Health at (312) 746-6621. You may also call this number if you have health-related questions or concerns. Spanish speakers are available.

What should I do if I see dust coming from a facility that stores or handles manganese?

The Chicago Department of Public Health regularly inspects the facilities in question to ensure they follow the law. However, if you see any dust coming from a facility, call 311 to report it and the City will send an additional environmental inspector.

What does this mean for residents that live near one of these facilities?

It is known that manganese dust has blown off-site from at least one facility in southeast Chicago. However, it is not known what amount, if any, of manganese residents were exposed to or whether any health effects could have resulted from that exposure. Until further information becomes available, residents should follow the instructions provided above.