



# City of Chicago



**R2020-358**

Office of the City Clerk

## Document Tracking Sheet

<b>Meeting Date:</b>	5/20/2020
<b>Sponsor(s):</b>	Misc. Transmittal Hopkins (2) La Spata (1)
<b>Type:</b>	Resolution
<b>Title:</b>	Call to suspend operations of General Iron Industries, Inc. during COVID-19 pandemic until Phase 5 of framework for reopening Chicago is complete (by Clean the North Branch)
<b>Committee(s) Assignment:</b>	Committee on Enviromental Protection and Energy



CITY OF CHICAGO



MICHELLE A. HARRIS, ALDERMAN, 8TH WARD  
CHAIRMAN-COMMITTEE ON COMMITTEES AND RULES  
CITY HALL, RM-200, OFFICE #4 • 121 NORTH LASALLE STREET, CHICAGO IL 60602  
PHONE: 312-744-3075 • FAX: 312-744-5007

**City Council Meeting  
October 7, 2020**

To the President and Members of the City Council:

Your Committee on Committees and Rules, considered all the following Report, Ordinances and Resolutions:

1. The approval of the July, 2020 Monthly Rule 45 Report for the Committee on Committees and Rules

Your Committee on Committee and Rules, recommends "do pass" of the following items:

2. Ordinance correcting the City Council Journal of Proceedings of November 20, 2019 (O2019-9357)
3. Ordinance correcting the City Council Journal of Proceedings of July 22, 2020 (O2020-4589)
4. Recommendation to refer the termination of the Intergovernmental agreement with Chicago Board of Education concerning stationing Chicago police officers at Chicago Public Schools locations (O2020-3331) to the Joint Committee on Education and Public Safety
5. Recommendation to refer proposed Amendment of Municipal Code Chapter 10-32 by adding new section 10-32-245 to establish Urban Forestry Advisory Board (O2020-3651) to the Committee on Finance
6. Recommendation to refer proposed resolution to suspend operations of General Iron Industries, Inc. during COVID-19 Pandemic until Phase 5 of framework for reopening Chicago is complete (R2020-358) to the Committee on Environmental Protection and Energy

This recommendation of each item was concurred in by the Committee on Committees and Rules.

Sincerely,

A handwritten signature in black ink, reading "Michelle Harris". The signature is written in a cursive style with a horizontal line underneath.

**Michelle Harris, Chairman  
Committee on Committees and  
Rules**

*May 20, 2020*

Dear City Clerk Valencia,

In accordance with the Illinois Revised Statutes, the Municipal Code of Chicago, and the City Council's Rules of Order, please introduce the attached Citizen's Resolution as a Miscellaneous Transmittal on behalf of Clean the North Branch at the May 20, 2020 meeting of the City Council and refer such matter to the Committee on Environmental Protection and Energy for consideration regarding the continued operations of industrial polluter General Iron Industries during the COVID-19 public health pandemic.

The advocates of this Resolution include thousands of Chicagoans who have been negatively impacted by General Iron. Furthermore, members of environmental protection groups are citizens and residents of the City of Chicago, who have done extensive research on the health and environmental threats General Iron poses on the community, and the effects of air pollution during a respiratory health crisis (see attached documentation of City and State agency-issued violations, air-quality reports and photographs).

Two copies of the proposed Resolution are attached hereto.

If you have any questions regarding the introduction of this proposed Resolution requiring General Iron to cease operations until Phase Five of the City of Chicago Reopening Plan is complete, please contact Lara Compton at [contact@cleanthenorthbranch.com](mailto:contact@cleanthenorthbranch.com).

Thank you for your prompt consideration.

Sincerely,

Clean the North Branch



CITY OF CHICAGO



OFFICE OF THE CITY CLERK  
ANNA M. VALENCIA


## Chicago City Council Co-Sponsor Form

Document No.: R2020-358

Subject: Call to suspend operations of General Iron Industries, Inc. during COVID-19 pandemic until Phase 5 of framework for reopening Chicago is complete (by Clean the North Branch)

### Adding Co-Sponsor(s)

Please **ADD** Co-Sponsor(s) Shown Below – (Principal Sponsor's Consent Required)

Alderman Daniel La Spata  (1 Ward)  
(Signature)

Alderman \_\_\_\_\_ (     Ward)  
(Signature)

Date Filed: July 6, 2020

Principal Sponsor: Misc. Transmittal  
(Signature)

### Removing Co-Sponsor(s)

Please **REMOVE** Co-Sponsor(s) Below – (Principal Sponsor's Consent NOT Required)

Alderman \_\_\_\_\_ (     Ward)  
(Signature)

Alderman \_\_\_\_\_ (     Ward)  
(Signature)

Date Filed: \_\_\_\_\_

Final Copies To Be Filed With: • Chairman of Committee to which legislation was referred  
• City Clerk



CITY OF CHICAGO

OFFICE OF THE CITY CLERK  
ANNA M. VALENCIA

## Chicago City Council Co-Sponsor Form

Document No.: R2020-358

Subject: Call to suspend operations of General Iron Industries, Inc. during COVID-19 pandemic until Phase 5 of framework for reopening Chicago is complete

### Adding Co-Sponsor(s)

Please **ADD** Co-Sponsor(s) Shown Below – (Principal Sponsor's Consent Required)

Alderman BRIAN HOPKINS

(Signature)

*Brian Hopkins*

2nd

Ward)

Alderman \_\_\_\_\_

(Signature)

Ward)

Date Filed: \_\_\_\_\_

Principal Sponsor: \_\_\_\_\_

(Signature)

### Removing Co-Sponsor(s)

Please **REMOVE** Co-Sponsor(s) Below – (Principal Sponsor's Consent NOT Required)

Alderman \_\_\_\_\_

(Signature)

Ward)

Alderman \_\_\_\_\_

(Signature)

Ward)

Date Filed: \_\_\_\_\_

**Final Copies To Be Filed With:**

- Chairman of Committee to which legislation was referred
- City Clerk

**WHEREAS**, COVID-19 is a respiratory virus that causes infection in the nose, sinuses, or upper throat, and poses a severe health threat to seniors and people with asthma and autoimmune diseases; and

**WHEREAS**, As the City of Chicago confronts the unprecedented public health crisis of the COVID-19 pandemic, residents and businesses are facing devastating illness, stay-at-home orders, social distancing requirements, self-quarantines; and

**WHEREAS**, Governor Pritzker and Mayor Lori Lightfoot have taken difficult, yet necessary, steps to combat the spread of COVID-19, including issuing stay-at-home orders, requiring "non-essential" businesses to be closed to the public, along with schools, parks, and other public facilities; and

**WHEREAS**, Executive Order 2020-10 issued by Governor Pritzker on March 20, 2020 implemented the stay-at-home order, categorizing businesses as essential or nonessential; and

**WHEREAS**, Per CDC guidelines, essential businesses that operate during the pandemic must consider how best to decrease the spread of COVID-19 and lower the impact in the workplace and public by maintaining safe business operations and a healthy work environment; and

**WHEREAS**, General Iron Industries, Inc. has been deemed an essential business despite incurring numerous City, State and Federal environmental and public health citations, and consistently produces "fugitive dust" which coats neighborhood sidewalks, roads, porches and playgrounds; and

**WHEREAS**, In December 2015, an extra alarm fire at General Iron triggered several loud explosions in the area and required a level 1 HAZMAT response; and

**WHEREAS**, In April 2016, the City's Department of Buildings forced General Iron to shut down temporarily after an inspection found over 25 code violations and concluded that the operation was "dangerous, hazardous and unsafe" and an "imminent threat to the public at large"; and

**WHEREAS**, In July 2018, the U.S. Environmental Protection Agency (EPA) cited General Iron with multiple violations of the Clean Air Act for failing to control emissions of hazardous metals that have been associated with cancer and other damaging health effects and failing to obtain a proper air pollution permit; and

**WHEREAS**, In October 2018, a man was found dead on the premises of General Iron; and

**WHEREAS**, Since December 2019, the Chicago Department of Public Health ticketed General Iron Industries, Inc. five times for "untreated emissions" escaping the premises; and

**WHEREAS**, On March 19, 2020, amid the COVID19 pandemic, while canvassing the neighborhood surrounding General Iron, a City of Chicago Department of Public Health

Inspector issued the following statement in a report: "Odors were observed on Cortland St. between Elston Ave., Clybourn Ave. It is a pungent odor of sweet, burning metal that burns my nostrils and makes it uncomfortable for me breathe in. When observing the shredder from across the North Branch Chicago River on Throop St. and the Home Depot parking lot (1232 W North Ave), untreated emissions were observed escaping the shredder"; and

**WHEREAS**, Clean the North Branch is committed to doing everything in our power to protect Chicagoans health in these difficult times, including calling for the temporary shutdown of a business that poses an immediate danger to the health and safety of residents during the COVID-19 pandemic; now, therefore

**BE IT RESOLVED**, That we, Clean the North Branch, residents of Lincoln Park, Old Town, Wicker Park, Bucktown and from across the city gathered here this twentieth day of May, 2020, do hereby call on Governor J.B. Pritzker and Mayor Lori E. Lightfoot to issue all necessary and appropriate Executive Orders to halt and suspend operations of General Iron Industries, Inc. during the COVID-19 pandemic until Phase Five of the City of Chicago Reopening Plan: "Protecting Chicago" Framework is complete.



*May 20, 2020*

Dear City Clerk Valencia,

In accordance with the Illinois Revised Statutes, the Municipal Code of Chicago, and the City Council's Rules of Order, please introduce the attached Citizen's Resolution as a Miscellaneous Transmittal on behalf of Clean the North Branch at the May 20, 2020 meeting of the City Council and refer such matter to the Committee on Environmental Protection and Energy for consideration regarding the continued operations of industrial polluter General Iron Industries during the COVID-19 public health pandemic.

The advocates of this Resolution include thousands of Chicagoans who have been negatively impacted by General Iron. Furthermore, members of environmental protection groups are citizens and residents of the City of Chicago, who have done extensive research on the health and environmental threats General Iron poses on the community, and the effects of air pollution during a respiratory health crisis (see attached documentation of City and State agency-issued violations, air-quality reports and photographs).

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Clean the North Branch

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**United States Senate**  
WASHINGTON, DC 20510

April 20, 2020

**VIA ELECTRONIC DELIVERY**

Kurt Thiede  
Region 5 Administrator  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Dear Administrator Thiede:

We urge you to exercise your authority under Section 114 of the Clean Air Act to require the four facilities at 11600 South Burley Street in Chicago, which are part of the Reserve Management Group operating under South Chicago Property Management (SCPM), to install Federal Equivalent Method real-time PM10 and Federal Reference Method filter-based air monitors to ensure that their noxious emissions are being appropriately characterized and controlled. We also ask that you take all necessary steps within your authority to ensure that these facilities, as well as a fifth facility currently operating at 11600 South Burley and the proposed "GIII" facility to be located at the same address, will not cause a hazard to the surrounding community. Doing so will further assure the community that the U. S. Environmental Protection Agency (EPA) is able to deliver on its commitment to addressing the environmental injustices that have been borne by the communities on the Southeast Side of Chicago.

The community on the Southeast Side adjacent to these facilities has long borne a heavy cumulative burden from multiple industrial facilities operating next to homes, parks, schools, and the Calumet River. Residents have been particularly concerned about high levels of airborne heavy metals at the Washington High School air monitor located roughly a half-mile to the East of 11600 S Burley. This monitor, sited adjacent to a park as well, has for many years registered the highest levels of several harmful metals in the state.

More recently, the community has been deeply concerned with the proposed move of the General Iron facility from Lincoln Park to this already over-burdened environmental justice area. The General Iron facility has for years faced numerous community complaints of burning metallic odors, explosions, and dispersion of dust and auto "fluff" into the community, consistent with recent inspection reports from the Chicago Department of Public Health and the growing body of science on the impacts of metals recycling facilities. It is also the subject of an enforcement action by EPA over uncontrolled shredder emissions and fugitive dust.

Southeast Side resident concern over this facility's move to the community is especially heightened because it has come to light that the "host" site for General Iron's move is already occupied by the SCPM facilities and one other company, some of which have been for years operating without air approvals and proper oversight. Their failure to abide by the law has likely resulted in legacy contamination of the soil and water in the surrounding area, based on evidence of pollution contained in the City of Chicago's inspection database, along with the direct emissions of the operations themselves. Both Illinois Environmental Protection Agency (IEPA) and the City of Chicago have found these facilities to be in violation of air requirements. Yet, neither agency has required air monitoring that history in this community has shown is crucial to identifying and addressing threats to public health and the environment. That is why it is critical that EPA use its resources to require monitors at these facilities now, ensuring that your technical experts and enforcement offices as well as the community have the information they need to protect public health.

We are also concerned by the ongoing failure to evaluate fully SCPM's four Burley facilities, the fifth facility at 11600 South Burley and the proposed relocated General Iron as a single source of emissions for permitting purposes. IEPA has acknowledged that the SCPM facilities and proposed new facility are a single source for air permitting purposes, the agency is moving forward with permitting the proposed new facility on a separate track from its permitting of the four other SCPM facilities. Indeed, IEPA noticed a draft permit for the proposed new facility on March 30 – notably while the state is under a shelter-in-place order – even though it has not yet made a determination on the permit for the four SCPM facilities. This action by IEPA makes it even more imperative that monitoring of the SCPM facilities happens as soon as possible in order for the data to be incorporated into the permitting process. Moreover, the permitting process is EPA's primary opportunity to assess the impacts of a facility's operations on a community and is not simply an administrative exercise. Here EPA also has an opportunity (and indeed responsibility) to look at the collective impacts of multiple co-located facilities. If EPA does not abide by its permit oversight role, we fear that the activities of these facilities will not be properly characterized, regulated and controlled, thus failing to protect the community.

We thank you again for your consideration of this request.

Sincerely,



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Tammy Duckworth  
United States Senator

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Richard J. Durbin  
United States Senator

DEPT. OF PUBLIC HEALTH

Inspection Number: 11124169  
Inspection Type: COMPLAINT RESPONSE  
Inspection Subtype: AIR POLLUTION WORK ORDER  
Inspector ID: 410716

Location: 1909 N CLIFTON AVE  
POINT: (-87.65856156811617 41.915350584255755)

Narrative:

CHICAGO DEPARTMENT OF PUBLIC HEALTH ENVIRONMENTAL ENGINEER RESPONDED TO A CITIZEN'S COMPLAINT REGARDING GENERAL IRON INDUSTRIES (GII, LLC) AT 1909 N CLIFTON AVE SPEWING NOXIOUS FUMES, DUST, AND POLLUTION INTO THE AIR THAT CAN BE SMELLED FOR AT LEAST A MILES RADIUS; IT IS A CONSTANT HEALTH HAZARD.

GII LLC OPERATES A RECYCLING FACILITY PURSUANT TO A CLASS IVB RECYCLING PERMIT (ENVREC1063430) ISSUED BY CDPH.

WHILE CANVASSING THE AREA SURROUNDING GII, LLC ON MARCH 19, 2020, ODORS WERE OBSERVED ON CORTLAND ST BETWEEN ELSTON AVE CLYBOURN AVE. IT IS A PUNGENT ODOR OF SWEET, BURNING METAL THAT BURNS MY NOSTRILS AND MAKES IT UNCOMFORTABLE FOR ME BREATHE IN. WHEN OBSERVING THE SHREDDER FROM ACROSS THE NORTH BRANCH CHICAGO RIVER ON THROOP ST AND THE HOME DEPOT PARKING LOT (1232 W NORTH AVE), UNTREATED EMISSIONS WERE OBSERVED ESCAPING THE SHREDDER. BLACK SMOKE WAS ALSO OBSERVED PERIODICALLY ESCAPING THE SHREDDER. AUTO FLUFF/AUTO SHREDDER RESIDUE WAS OBSERVED AT THE INTERSECTION OF CLIFTON AVE AND MARCEY ST, ON BOTH THE PAWS CHICAGO TRAINING CENTER PROPERTY (1933 N MARCEY ST) AND THE LOCK UP SELF STORAGE PROPERTY (1930 NORTH CLYBOURN AVE). BOTH PROPERTIES ARE DIRECTLY NORTHEAST OF THE GII, LLC PROPERTY AT 1909 N CLIFTON AVE. AUTO FLUFF IS A PRODUCT OF SHREDDING OPERATIONS AND IT CONSIST OF FINE PARTICLES OF GLASS, FIBERS, RUBBER, METAL, PLASTIC, DIRT, AND AUTOMOTIVE FLUIDS. MISTING CANNONS WERE OBSERVED TO NOT BE IN OPERATION TO CONTROL AIRBORNE PARTICLES AT THE TIME OF THE INSPECTION. NO FUGITIVE DUST OR DEBRIS WAS OBSERVED WHEN WORKERS DISTURBED MATERIAL PILES AND MOVED MATERIALS TO AND FROM TRUCK TRAILERS SINCE THE PILES AND GROUND HAD BEEN SATURATED WITH WATER FROM THE RECENT RAIN. I ALSO OBSERVED GII LLC PERSONNEL REMOVING AUTO FLUFF FROM THE PUBLIC WAY ON MARCEY ST. A NOV CITATION #E000034390 WAS ISSUED FOR AIR POLLUTION PROHIBITED (11-4-730) AND HANDLING OF MATERIAL SUSCEPTIBLE TO BECOMING WINDBORNE (11-4-760[A]) TO GII, LLC. A NOV CITATION #E000034391 WAS ISSUED FOR

VIOLATING ANY CONDITION IMPOSED BY THE PERMIT (11-4-030[B]) SPECIAL  
CONDITION 46 WHICH REQUIRES THE PERMITTEE TO CONTROL AND  
SUPPRESS DUST AND OTHER MATERIALS TO PREVENT OFF-SITE MIGRATION  
AND NUISANCE IN CONNECTION WITH BUSINESS (7-28-080) TO GII, LLC. THE  
HEARING DATE FOR THE CITATIONS WILL BE ON JULY 9, 2020 AT 1:00 P.M. AT  
400 W. SUPERIOR ST. THE CITATION WILL BE SERVED VIA US MAIL TO  
GENERAL IRON INDUSTRIES (GII, LLC) AGENT LISTED ON THE ILLINOIS  
SECRETARY OF STATE CORPORATION FILE DETAIL REPORT. THE AGENTS  
NAME AND ADDRESS ILLINOIS CORPORATION SERVICE C AT 801 ADLAI  
STEVENSON DRIVE, SPRINGFIELD, IL 62703.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604 3590

JUL 18 2018

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

REPLY TO THE ATTENTION OF:

Mr. Adam Labkon  
General Iron Industries, Inc.  
1909 N. Clifton Ave.  
Chicago, Illinois 60614

Re: Notice and Finding of Violation  
General Iron Industries, Inc.  
Chicago, Illinois

Dear Mr. Labkon:

The U.S. Environmental Protection Agency (EPA) is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to General Iron Industries, Inc. (you) under Sections 113(a)(1) and 113(a)(3) of the Clean Air Act (CAA), 42 U.S.C. §§ 7413(a)(1) and 7413(a)(3). We find that you are violating and have violated the Illinois State Implementation Plan, Title V of the CAA, 42 U.S.C. §§ 7661a-7661f, and Section 114 of the CAA, 42 U.S.C. § 7414, at your facility in Chicago, Illinois.

Section 113 of the CAA gives the EPA several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

While we have been in discussions with you for some time regarding conditions at your facility, the emissions tests you have performed, and possible options for pollution controls, this letter provides formal notice of the violations, and offers you an opportunity to confer with us about those violations as alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.



The EPA contact in this matter is Mr. Scott Connolly. You may call or email him at (312) 886-1493 or [connolly.scott@epa.gov](mailto:connolly.scott@epa.gov) to request a conference. You may also have your attorney contact Erik Olson at (312) 886-6829 or [olson.erik@epa.gov](mailto:olson.erik@epa.gov). You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Edward Nam", with a stylized flourish at the end.

Edward Nam  
Director  
Air and Radiation Division

Enclosure

cc: Julie Armitage, Chief, Bureau of Air

Ann Zwick  
Freeborn and Peters LLP  
311 South Wacker Drive  
Suite 3000  
Chicago, IL 60606

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

<b>IN THE MATTER OF:</b>	)	
	)	
General Iron Industries, Inc.	)	<b>NOTICE AND FINDING</b>
	)	<b>OF VIOLATION</b>
Chicago, Illinois	)	
	)	<b>EPA-5-18-IL-14</b>
Proceedings Pursuant to	)	
Section 113(a)(1) of the	)	
Clean Air Act, 42 U.S.C.	)	
§ 7413(a)(1)	)	

**NOTICE AND FINDING OF VIOLATION**

The U.S. Environmental Protection Agency (EPA) is issuing this Notice and Finding of Violation (NOV/FOV) under Sections 113(a)(1) and 113(a)(3) of the Clean Air Act (CAA), 42 U.S.C. §§ 7413(a)(1) and 7413(a)(2). EPA finds that General Iron Industries, Inc. (General Iron) is violating Section 114(a)(1) of the CAA, 42 U.S.C. §7414, Title V of the CAA, 42 U.S.C. §§ 7661a-7661f, and the Illinois State Implementation Plan (SIP), as follows:

**Statutory and Regulatory Background**

1. The Administrator of EPA may require any person who owns or operates an emission source who is subject to any requirement of the CAA to provide information required by the Administrator under Section 114(a)(1) of the CAA, 42 U.S.C. § 7414(a)(1). The Administrator has delegated this authority to the Director of the Air and Radiation Division.
2. Title V of the CAA, 42 U.S.C. §§ 7661a-7661f, establishes an operating permit program for certain sources, including "major sources" and "major stationary sources."
3. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate except in compliance with a Title V permit.
4. 40 C.F.R. § 70.1(b) provides that all sources subject to the Part 70 regulations shall have a permit to operate that assures compliance by the source with all applicable requirements, as defined in 40 C.F.R. § 70.2.
5. Section 503(c) of the CAA, 42 U.S.C. § 7661b(c), and 40 C.F.R. § 70.5(a) provide that any person required to have a permit under Title V must timely submit an application for a permit.

6. U.S. EPA granted full approval to the Illinois Title V operating permit program (CAAPP) on December 4, 2001, set forth at 415 Illinois Compiled Statutes (ILCS) Section 5/39.5. The program became effective on November 30, 2001. 66 Fed. Reg. 62946.
7. Section 39.5(6)(b) of the Illinois Environmental Protection Act states that no person shall operate a CAAPP source without a CAAPP permit unless a CAAPP permit or renewal application has been timely submitted. 415 ILCS § 5/39.5(6)(b).
8. Section 502 of the CAA, 42 U.S.C. § 7661a, applies to all major stationary sources, defined at Section 501 of the CAA, 42 U.S.C. § 7602.
9. Section 39.5 of the Illinois Environmental Protection Act applies to any source defined as a major source or major stationary source. 415 ILCS § 5/39.5(2)(a)(ii).
10. The definition of "major stationary source" includes any stationary source located in a "marginal" or "moderate" ozone non-attainment area that emits or has the potential to emit 100 tons per year or more of volatile organic compounds. 415 ILCS § 5/39.5(2)(c)(iii).
11. Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a SIP that provides for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS).
12. The Administrator of the EPA approved Illinois' plan for the attainment and maintenance of the NAAQS under Section 110 of the CAA. *See* 40 C.F.R. § 52.722 and 55 Fed. Reg. 40661 (October 4, 1990).
13. On May 31, 1972, EPA approved Section 201.122 of Title 35 of the Illinois Administrative Code (IAC) as part of the federally enforceable Illinois SIP. 37 Fed. Reg. 10862.
14. 35 IAC § 201.122 states that evidence that specified air contaminant emissions, as calculated on the basis of standard emission factors or other factors generally accepted as true by those persons engaged in the field of air pollution control, exceed the limitations prescribed under 35 IAC, Chapter 1, shall constitute adequate proof of a violation, in the absence of a showing that actual emissions are in compliance.
15. On September 9, 1994, EPA approved Part 211 of the IAC as part of the federally enforceable Illinois SIP. 59 Fed. Reg. 46567.
16. 35 IAC § 211.3690 defines "maximum theoretical emissions" as the quantity of volatile organic material emissions that theoretically could be emitted by a stationary source before add-on controls based on the design capacity or maximum production capacity of the source and 8760 hours per year.
17. 35 IAC § 211.4970 defines "potential to emit" as the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restriction on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is federally enforceable. *See also* 40 C.F.R. § 70.2; 415 ILCS § 5/39.5(1).

18. On February 21, 1980, EPA approved 35 IAC § 212.301 as part of the federally enforceable Illinois SIP. 45 Fed. Reg. 11493.
19. 35 IAC § 212.301 states that no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the emission source.
20. On March 12, 1997, EPA approved 35 IAC § 218.980, as part of the federally enforceable SIP. 62 Fed. Reg. 11327.
21. 35 IAC § 218.980(a)(1) states that a source is subject to 35 IAC Part 218, Subpart TT, if it contains process emission units not regulated by the Subparts identified in 35 IAC § 218.980(a)(1), which as a group have a maximum theoretical emissions of 100 tons or more per calendar year of volatile organic matter (VOM) and are not limited to less than 100 ton of VOM emissions per calendar year in the absence of air pollution control equipment through production or capacity limitations contained in a federally enforceable permit or SIP revision.
22. 35 IAC § 218.980(b)(1) states, in pertinent part, that a source is subject to 35 IAC Part 218, Subpart TT, if it has the potential to emit 25 tons or more of VOM per year, in aggregate, from emission units, that are not regulated by the Subparts identified in 35 IAC § 218.980(b)(1)(A) and not included in the categories listed in 35 IAC § 218.980(b)(1)(B).
23. On October 21, 1996, EPA approved 35 IAC §§ 218.986 and 987, as part of the federally enforceable SIP. 61 Fed. Reg. 54556.
24. 35 IAC § 218.986 states that every owner or operator of an emission unit subject to 35 IAC Part 218, Subpart TT shall comply with 35 IAC § 218.986(a).
25. 35 IAC § 218.986(a) requires every owner or operator to operate emission capture and control equipment which achieves an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
26. 35 IAC §§ 218.987 and 218.106(c) require every owner or operator of an emission unit which is subject to 35 IAC Part 218, Subpart TT to comply with the requirements of 35 IAC Part 218, Subpart TT, by March 15, 1995.

### Findings

27. General Iron owns and operates a metal shredding and recycling facility at 1909 North Clifton Ave, Chicago, Illinois (Facility), which is located in Cook County.
28. Cook County is part of the Chicago-Naperville, IL-IN-WI nonattainment area which is classified as "marginal" or "moderate."
29. General Iron stores, processes, and recycles ferrous and non-ferrous scrap metals from cars and post-consumer sheet metal at the Facility.
30. Scrap metal is shredded in a hammermill shredder at the Facility.
31. On or about June 13, 2017, May 24 & 25, 2018 and June 13, 2018, EPA conducted onsite inspections at the Facility, including inspections during emissions testing conducted by the Facility.
32. On or about November 11, 2017, EPA issued a Section 114 Information Request (2017 Information Request) to General Iron regarding the Facility. The 2017 Information Request, among other things, required General Iron to conduct emission testing at the facility and to provide the results of the emission testing to EPA. The required emissions testing included evaluations of VOM, particulate matter (PM) and metals emissions.
33. On December 13, 2017 and May 21, 2018, General Iron met with EPA to discuss the 2017 Information Request.
34. General Iron conducted testing as required by the 2017 Information Request on May 24, 2018, May 25, 2018, including testing for VOM, PM, and metals emissions, and on June 13, 2018 and June 14, 2018, including testing for PM and metals emissions.
35. During the May 24 & 25, 2018 inspection, EPA observed and recorded hydrocarbons exiting the hammermill shredder with a FLIR infrared camera.
36. During the June 13, 2018 inspection, EPA observed fugitive particulate matter emitted from the hammermill shredder crossing the property line.
37. On or about December 12, 2017 and June 27, 2018, General Iron provided responses to the 2017 Information Request, including the results of emissions testing for VOM conducted on May 24 and 25, 2018 and emissions testing for PM and metals conducted on June 13 and 14, 2018.
38. General Iron did not provide to EPA the results of the emissions testing for PM and metals conducted on May 24 and 25, 2018.
39. Based on the results of the emissions testing, the Facility emits or has the potential to emit more than 100 tons per calendar year of volatile organic compounds.

40. General Iron is a “major source” as defined at 42 U.S.C. § 7661(2) and 415 ILCS § 5/39.5(2)(c)(i).
41. By operating as a major source, General Iron is subject to the requirements of the CAA’s Title V, 42 U.S.C. §§ 7661a-7661f, at the Facility.
42. To date, General Iron has not submitted a complete CAAPP permit application to Illinois EPA.
43. To date, General Iron has not received a CAAPP permit from Illinois EPA.
44. Based on the December 12, 2017 response and the results of the emissions testing, the hammermill shredder at the Facility has maximum theoretical emissions rate of more than 100 tons per calendar year of VOM.
45. Based on the December 12, 2017 response and the results of the emissions testing, the hammermill shredder alone emits 25 tons or more of VOM per year.
46. To date, General Iron does not have any emission capture or control equipment that achieves an overall reduction of uncontrolled VOM emissions of at least 81 percent at the hammermill shredder nor does it have in place a federally enforceable alternative control plan that achieves an overall reduction of uncontrolled VOM emissions of at least 81 percent at the hammermill shredder.

#### **Violations**

47. By failing to submit a timely and complete CAAPP permit application to Illinois EPA, General Iron has violated of Section 503 of the CAA, the regulations at 40 C.F.R. §§ 70.5(a) and 70.7(b), and the Illinois Environmental Protection Act at 415 ILCS § 5/39.5(4)(c).
48. By operating as a major stationary source without a Title V permit, General Iron has violated Section 502 of the CAA, the regulations at 40 C.F.R. §§ 70.1(b) and 70.7(b), and the Illinois Environmental Protection Act at 415 ILCS § 5/39.5(6)(b).
49. General Iron allowed fugitive particulate matter from the hammermill shredder that was visible by an observer looking generally toward the zenith to cross the property line of the Facility on at least June 13, 2018, in violation of 35 IAC § 212.301 and the SIP.
50. To date, General Iron has failed to install any emission capture or control equipment that achieves an overall reduction of uncontrolled VOM emissions of at least of 81 percent at the hammermill shredder or, alternatively, obtain a federally enforceable equivalent control plan at the hammermill shredder, in violation of 35 IAC § 218.986(a) and the SIP.

51. To date, General Iron has failed to provide the results of the May 24 and 25 PM and metals emissions testing as required by the 2017 Information Request, in violation of Section 114 of the CAA, 42 U.S.C. § 7414.

### Environmental Impact of Violations

52. These violations can cause and have caused excess emissions of VOMs and particulate matter.
53. VOMs are photochemical oxidants associated with a number of detrimental health effects, which include birth defects and cancer, as well as environmental and ecological effects. In the presence of sunlight, VOMs are influenced by a variety of meteorological conditions and have the ability to create photochemical smog. VOMs react with oxygen in the air to produce ground-level ozone.
54. Breathing ozone contributes to a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame lung tissue. Repeated exposure may permanently scar lung tissue.
55. Particulate matter, especially fine particulates, contains microscopic solids or liquid droplets, which can get deep into the lungs and cause serious health problems. Particulate matter exposure contributes to:
- irritation of the airways, coughing, and difficulty breathing;
  - decreased lung function;
  - aggravated asthma;
  - chronic bronchitis;
  - irregular heartbeat;
  - nonfatal heart attacks; and
  - premature death in people with heart or lung disease.

Date

7/18/18

Edward Nam

Director

Air and Radiation Division

**CERTIFICATE OF MAILING**

I certify that I sent a Notice of Violation, No. EPA-5-18-IL-14, by Certified Mail, Return

Receipt Requested, to:

Adam Labkon  
Vice President  
General Iron Industries, Inc.  
1909 North Clifton Street  
Chicago, IL 60608

I also certify that I sent copies of the Notice of Violation by email to:

Julie Armitage  
Chief  
Bureau of Air  
Julie.armitage@Illinois.gov

Ann Zwick  
azwick@freeborn.com

On the 19<sup>th</sup> day of July 2018.



Kathy Jones  
Program Technician  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7017 1070 0000 1030 0102



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

**IN THE MATTER OF:**

**General Iron Industries, Inc.**  
1909 N. Clifton Avenue,  
Chicago, Illinois 60614

**ATTENTION:**

**Jim Kallas**  
Plant Environmental Engineer

**Request to Provide Information Pursuant to the Clean Air Act**

The U.S. Environmental Protection Agency is requiring General Iron Industries, Inc. (General Iron) to submit certain information about the facility at 1909 N. Clifton Avenue, Chicago Illinois. Appendix A provides the instructions needed to answer this information request, including instructions for electronic submissions. Appendix B specifies the information that you must submit relating to emissions testing we are requiring you to complete, including the submittal of a test protocol, notification of intent to test, and the completion of a testing report. Appendix C specifies the information that you must submit relating to various permits and operating information. You must send this information to us according to the schedules contained in each appendix.

We are issuing this information request under Section 114(a) of the Clean Air Act (the CAA), 42 U.S.C. § 7414(a). Section 114(a) authorizes the Administrator of EPA to require the submission of information. The Administrator has delegated this authority to the Director of the Air and Radiation Division, Region 5.

General Iron owns and operates an emission source at the Chicago, Illinois facility. We are requesting this information to determine whether your emission source is complying with the Illinois State Implementation Plan.

General Iron must send all required information to:

Attn: Compliance Tracker, AE-18J  
Air Enforcement and Compliance Assurance Branch  
U.S. Environmental Protection Agency  
Region 5  
77 W. Jackson Boulevard  
Chicago, Illinois 60604

General Iron must submit all required information under an authorized signature with the following certification:

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Clean Air Act and 18 U.S.C. §§ 1001 and 1341.

As explained more fully in Appendix D, you may assert a claim of business confidentiality under 40 C.F.R. Part 2, Subpart B for any part of the information you submit to us. Information subject to a business confidentiality claim is available to the public only to the extent, and by means of the procedures, set forth at 40 C.F.R. Part 2, Subpart B. If you do not assert a business confidentiality claim when you submit the information, EPA may make this information available to the public without further notice. You should be aware, moreover, that pursuant to Section 114(c) of the CAA and 40 C.F.R. § 2.301(a) and (f), emissions data, standards and limitations are not entitled to confidential treatment and shall be made available to the public notwithstanding any assertion of a business confidentiality claim. Appendix D

provides additional information regarding the meaning and scope of the term "emissions data."


This information request is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 *et seq.*, because it seeks collection of information from specific individuals or entities as part of an administrative action or investigation.

We may use any information submitted in response to this request in an administrative, civil or criminal action.

Failure to comply fully with this information request may subject General Iron to an enforcement action under Section 113 of the CAA, 42 U.S.C. § 7413.

You should direct any questions about this information request to Scott Connolly at 312-886-1493 or at [connolly.scott@epa.gov](mailto:connolly.scott@epa.gov).

11/14/17  
Date

  
\_\_\_\_\_  
Edward Nam  
Director  
Air and Radiation Division

## **Appendix A**

When providing the information requested in Appendices B and C, use the following instructions and definitions.

### **Instructions**

1. Provide a separate narrative response to each question and subpart of a question set forth in Appendix C.
2. Precede each answer with the number of the question to which it corresponds and, at the end of each answer, identify the person(s) who provided information used or considered in responding to that question, as well as each person consulted in the preparation of that response.
3. Indicate on each document produced, or in some other reasonable manner, the number of the question to which it corresponds.
4. When a response is provided in the form of a number, specify the units of measure of the number in a precise manner.
5. Where information or documents necessary for a response are neither in your possession nor available to you, indicate in your response why the information or documents are not available or in your possession, and identify any source that either possesses or is likely to possess the documents or information.
6. If information not known or not available to you as of the date of submission later becomes known or available to you, you must supplement your response. Moreover, should you find at any time after the submission of your response that any portion of the submitted information is false or incorrect, you must notify EPA as soon as possible.

### **Electronic Submissions**

To aid in our electronic recordkeeping efforts, we request that you provide all documents responsive to this information request in an electronic format according to paragraphs 1 through 6, below. These submissions are in lieu of hard copy.

1. Provide all responsive documents in Portable Document Format (PDF) or similar format, unless otherwise requested in specific questions. If the PDFs are scanned images, perform at least Optical Character Recognition (OCR) for "image over text" to allow the document to be searchable. Submitters providing secured PDFs should also provide unsecured versions for EPA use in repurposing text.
2. When specific questions request data in electronic spreadsheet form, provide the data and corresponding information in editable Excel or Lotus format, and not in image format. If Excel or Lotus formats are not available, then the format should allow for data to be used in calculations by a standard spreadsheet program such as Excel or Lotus.

3. Provide submission on physical media such as compact disk, flash drive or other similar item.
4. Provide a table of contents for each compact disk or flash drive containing electronic documents submitted in response to our request so that each document can be accurately identified in relation to your response to a specific question. *We recommend the use of electronic file folders organized by question number.* In addition, each compact disk or flash drive should be labeled appropriately (e.g., Company Name, Disk 1 of 4 for Information Request Response, Date of Response).
5. Documents claimed as confidential business information (CBI) must be submitted on separate disks/drives apart from the non-confidential information. This will facilitate appropriate records management and appropriate handling and protection of the CBI. Please follow the instructions in Appendix D for designating information as CBI.
6. Certify that the attached files have been scanned for viruses and indicate what program was used.

#### **Definitions**

All terms used in this information request have their ordinary meaning unless such terms are defined in the CAA, 42 U.S.C. §§ 7401 *et seq.*

## Appendix B

### Information You Are Required to Submit to EPA: Emissions Testing

General Iron Industries (General Iron) must respond to this information request by performing testing at its facility in Chicago, Illinois ("the facility") pursuant to Section 114(a) of the CAA, 42 U.S.C. § 7414(a). General Iron must submit a test plan, conduct testing, and submit all other information requested in accordance with the schedule specified below:

Submit testing Protocol(s)	Not less than 45 days before testing
Notification of Intent to Test	Not less than 21 days before testing
Complete testing	Within 180 days of receipt of this request
Submit Testing Report	Within 30 days of completion of testing

1. Within one hundred and eighty (180) calendar days after receipt of this request, General Iron must perform emission testing at the facility to determine:
  - a. The total gaseous organic compound emission rate as volatile organic compounds (VOC) of the hammermill shredder using EPA Reference Methods 1-4 and Method 25A. Methane and ethane concentrations shall be determined using Method 18 and subtracted from the total hydrocarbon concentration measured following Method 25A to determine VOC concentrations;
  - b. Particulate Matter emission rate using EPA Reference Methods 1-4 and Method 5; and
  - c. Metals emission rates of the hammermill shredder using EPA Reference Methods 1-4 and Method 29.
2. During the testing conducted pursuant to Item 1, General Iron shall monitor and record the operating parameters of the shredder, including metal feed rate, water flow rates, shredder amperage and autos and non-auto material shredded per run.
3. During all emission testing, General Iron shall operate under representative conditions.
4. Not less than forty-five (45) calendar days prior to the planned test(s), General Iron shall submit to EPA a proposed testing protocol that completely describes the methods and procedures for testing at each unit, including all relevant operating parameters. The protocol shall state:
  - a. the proposed level of production during emission testing, as well as
  - b. the maximum and average production rates at processes associated with each emission point; and
  - c. shall state what procedures will be utilized to minimize unmeasured emissions.
5. General Iron shall conduct the testing under a protocol approved, in advance, by EPA. General Iron shall submit the protocol via e-mail to [connolly.scott@epa.gov](mailto:connolly.scott@epa.gov). EPA will provide approval or comments on the testing protocol via e-mail.

6. At least twenty-one (21) calendar days prior to the planned test(s), General Iron shall submit notification to EPA of its intent to perform emission testing. General Iron shall submit this notice via e-mail to [connolly.scott@epa.gov](mailto:connolly.scott@epa.gov).
7. Within thirty (30) calendar days after the completion of the test(s), General Iron shall submit a complete report of the emissions testing, including, at minimum, the following:
  - a. Summary of Results
    - i. results of the above-specified emission test(s);
    - ii. process and control equipment data recorded during the test(s);
    - iii. discussion of any errors that occurred during testing;
    - iv. discussion of any deviations from the reference test methods or other problems encountered during the test; and
    - v. data on production rate during testing.
  - b. Facility Operations
    - i. description of the process and control equipment in operation during the test(s);
    - ii. operating parameters of any control equipment in operation during the test(s); and
    - iii. facility operating parameters and data, including an explanation of how the operating parameters demonstrate that the process units were operating at greater than 95% production capacity at the time of the test.
  - c. Sampling and Analytical Procedures
    - i. sampling port location(s) and dimensions of cross-section;
    - ii. sampling point description, including labeling system;
    - iii. brief description of sampling procedures, including equipment and diagram;
    - iv. description of sampling procedures (planned or accidental) that deviated from any standard method;
    - v. brief description of analytical procedures, including calibration;
    - vi. description of analytical procedures (planned or accidental that deviated from any standard method; and
    - vii. quality control/quality assurance procedures, tests, and results.
  - d. Appendix
    - i. complete results with example calculations;
    - ii. raw field data;
    - iii. laboratory report, with signed chain-of-custody forms;
    - iv. calibration procedures and results;
    - v. raw process and equipment data, signed by a plant representative;
    - vi. test log(s), and
    - vii. project participants and titles.

## **Appendix C**

### **Information You Are Required to Submit to EPA: Permits and Operations**

General Iron must submit the following information about its facility in Chicago, Illinois, pursuant to Section 114(a) of the CAA, 42 U.S.C. § 7414(a) within 30 days of receipt of this request.

1. Provide all construction permits, operating permits and permit applications submitted, received or in use since July 1, 2010.
2. Provide copies of the Operating Program, maintained pursuant to 35 Ill. Adm. Code 212.309, and all revisions, used at the facility since July 1, 2012.
3. Provide copies of all annual emissions reports submitted to the Illinois Environmental Protection Agency from January 1, 2012 to the present.
4. Provide in Microsoft Excel compatible format monthly records of shredder throughput (tons/month) since July 1, 2012. Separate throughput by total tons, light iron (ferrous), and non-ferrous, include amount of auto bodies shredded, in tons.
5. Provide shredder operating hours per day for each day from July 1, 2012 to the present. If no operations were conducted, state why there were no operations.
6. Provide facility documents discussing volatile organic compound (VOC) emissions from the shredder since July 1, 2010. Include emissions calculations, applicability studies and correspondence.



## **Appendix D**

### **Confidential Business and Personal Privacy Information**

#### **Assertion Requirements**

You may assert a business confidentiality claim covering any parts of the information requested in the attached Appendix B and Appendix C, as provided in 40 C.F.R. § 2.203(b).

Emission data provided under Section 114 of the CAA, 42 U.S.C. § 7414, is not entitled to confidential treatment under 40 C.F.R. Part 2.

“Emission data” means, with reference to any source of emissions of any substance into the air:

Information necessary to determine the identity, amount, frequency, concentration or other characteristics (to the extent related to air quality) of any emission which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing;

Information necessary to determine the identity, amount, frequency, concentration or other characteristics (to the extent related to air quality) of the emissions which, under an applicable standard or limitation, the source was authorized to emit (including to the extent necessary for such purposes, a description of the manner and rate of operation of the source); and

A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).

40 C.F.R. § 2.301(a)(2)(i)(A), (B) and (C).

To make a confidentiality claim, submit the requested information and indicate that you are making a claim of confidentiality. Any document for which you make a claim of confidentiality should be marked by attaching a cover sheet stamped or typed with a caption or other suitable form of notice to indicate the intent to claim confidentiality. The stamped or typed caption or other suitable form of notice should employ language such as “trade secret” or “proprietary” or “company confidential” and indicate a date, if any, when the information should no longer be treated as confidential. Information covered by such a claim will be disclosed by EPA only to the extent permitted and by means of the procedures set forth at Section 114(c) of the CAA and 40 C.F.R. Part 2. Allegedly confidential portions of otherwise non-confidential documents should be clearly identified. EPA will construe the failure to furnish a confidentiality claim with your response to the information request as a waiver of that claim, and the information may be made available to the public without further notice to you.

### **Determining Whether the Information Is Entitled to Confidential Treatment**

All confidentiality claims are subject to EPA verification and must be made in accordance with 40 C.F.R. § 2.208, which provides in part that you must satisfactorily show: that you have taken reasonable measures to protect the confidentiality of the information and that you intend to continue to do so, that the information is not and has not been reasonably obtainable by legitimate means without your consent and that disclosure of the information is likely to cause substantial harm to your business's competitive position.

Pursuant to 40 C.F.R. Part 2, Subpart B, EPA may at any time send you a letter asking that you support your confidential business information (CBI) claim. If you receive such a letter, you must respond within the number of days specified by EPA. Failure to submit your comments within that time would be regarded as a waiver of your confidentiality claim or claims, and EPA may release the information. If you receive such a letter, EPA will ask you to specify which portions of the information you consider confidential by page, paragraph and sentence. Any information not specifically identified as subject to a confidentiality claim may be disclosed to the requestor without further notice to you. For each item or class of information that you identify as being CBI, EPA will ask that you answer the following questions, giving as much detail as possible:

1. For what period of time do you request that the information be maintained as confidential, e.g., until a certain date, until the occurrence of a special event or permanently? If the occurrence of a specific event will eliminate the need for confidentiality, please specify that event.
2. Information submitted to EPA becomes stale over time. Why should the information you claim as confidential be protected for the time period specified in your answer to question number 1?
3. What measures have you taken to protect the information claimed as confidential? Have you disclosed the information to anyone other than a governmental body or someone who is bound by an agreement not to disclose the information further? If so, why should the information still be considered confidential?
4. Is the information contained in any publicly available databases, promotional publications, annual reports or articles? Is there any means by which a member of the public could obtain access to the information? Is the information of a kind that you would customarily not release to the public?
5. Has any governmental body made a determination as to confidentiality of the information? If so, please attach a copy of the determination.
6. For each category of information claimed as confidential, explain with specificity why release of the information is likely to cause substantial harm to your competitive position. Explain the specific nature of those harmful effects, why they should be viewed as

substantial and the causal relationship between disclosure and such harmful effects. How could your competitors make use of this information to your detriment?

7. Do you assert that the information is submitted on a voluntary or a mandatory basis? Please explain the reason for your assertion. If you assert that the information is voluntarily submitted information, explain whether and why disclosure of the information would tend to lessen the availability to EPA of similar information in the future.
8. Is there any other information you deem relevant to EPA's determination regarding your claim of business confidentiality?

If you receive a request for a substantiation letter from the EPA, you bear the burden of substantiating your confidentiality claim. Conclusory allegations will be given little or no weight in the determination. In substantiating your CBI claim(s), you must bracket all text so claimed and mark it "CBI." Information so designated will be disclosed by EPA only to the extent allowed by and by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. If you fail to claim the information as confidential, it may be made available to the public without further notice to you.

#### **Personal Privacy Information**

Please segregate any personnel, medical and similar files from your responses and include that information on a separate sheet(s) marked as "Personal Privacy Information." Disclosure of such information to the general public may constitute an invasion of privacy.

**CERTIFICATE OF MAILING**

I certify that I sent a Request to Provide Information Pursuant to the Clean Air Act by

Certified Mail, Return Receipt Requested, to:

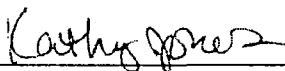
Jim Kallas  
Plant Environmental Engineer  
General Iron Industries  
1909 N. Clifton Avenue  
Chicago, Illinois, 60614

I also certify that I sent a copy of the Request to Provide Information Pursuant to the

Clean Air Act by E-mail to:

Julie Armitage  
Chief  
Bureau of Air  
Illinois Environmental Protection Agency  
Julie.Armitage@Illinois.gov

On the 15<sup>th</sup> day of November 2017.



Kathy Jones, Program Technician  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: - 7001 0320 0006 0185 6722









**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

DEC 10 2010

REPLY TO THE ATTENTION OF

(AE-17J)

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Marilyn Labkon  
President-Secretary-Treasurer  
General Iron Industries, Inc.  
1909 N. Clifton Ave.  
Chicago, Illinois 60614

Re: Notice of Violation  
General Iron Industries, Inc.

Dear Ms. Labkon:

The U.S. Environmental Protection Agency (U.S. EPA) is issuing the enclosed Notice of Violation (NOV) to General Iron Industries, Inc. (you) under Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1). We find that you have violated the Illinois State Implementation Plan at your Chicago, Illinois facility.

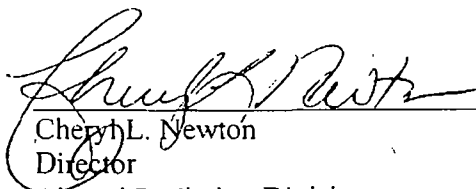
Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The U.S. EPA contact in this matter is Monica Onyszko. You may call her at 312-353-5139 to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cheryl L. Newton", is written over a horizontal line.

Cheryl L. Newton  
Director  
Air and Radiation Division

Enclosures:

1. Notice of Violation
2. SBREFA fact sheet

cc: Ray Pilapil, Air Quality Division  
Illinois Environmental Protection Agency





*Office of Enforcement and Compliance Assurance*  
**INFORMATION SHEET**

## **U. S. EPA Small Business Resources**

If you own a small business, the United States Environmental Protection Agency (EPA) offers a variety of compliance assistance resources such as workshops, training sessions, hotlines, websites, and guides to assist you in complying with federal and state environmental laws. These resources can help you understand your environmental obligations, improve compliance, and find cost-effective ways to comply through the use of pollution prevention and other innovative technologies.

### **Compliance Assistance Centers**

([www.assistancecenters.net](http://www.assistancecenters.net))

In partnership with industry, universities, and other federal and state agencies, EPA has established Compliance Assistance Centers that provide information targeted to industries with many small businesses.

#### **Agriculture**

([www.epa.gov/agriculture](http://www.epa.gov/agriculture) or 1-888-663-2155)

#### **Automotive Recycling Industry**

([www.ecarcenter.org](http://www.ecarcenter.org))

#### **Automotive Service and Repair**

([www.ccar-greenlink.org](http://www.ccar-greenlink.org) or 1-888-GRN-LINK)

#### **Chemical Industry**

([www.chemalliance.org](http://www.chemalliance.org))

#### **Construction Industry**

([www.cicacenter.org](http://www.cicacenter.org) or 1-734-995-4911)

#### **Education**

([www.campuserc.org](http://www.campuserc.org))

#### **Healthcare Industry**

([www.hercenter.org](http://www.hercenter.org) or 1-734-995-4911)

#### **Metal Finishing**

([www.nmfrc.org](http://www.nmfrc.org) or 1-734-995-4911)

#### **Paints and Coatings**

([www.paintcenter.org](http://www.paintcenter.org) or 1-734-995-4911)

#### **Printed Wiring Board Manufacturing**

([www.pwbrc.org](http://www.pwbrc.org) or 1-734-995-4911)

#### **Printing**

([www.pneac.org](http://www.pneac.org) or 1-888-USPNEAC)

### **Transportation Industry**

([www.transource.org](http://www.transource.org))

### **Tribal Governments and Indian Country**

([www.epa.gov/tribal/compliance](http://www.epa.gov/tribal/compliance) or 202-564-2516)

### **US Border Environmental Issues**

([www.bordercenter.org](http://www.bordercenter.org) or 1-734-995-4911)

The Centers also provide State Resource Locators ([www.envcap.org/statetools/index.cfm](http://www.envcap.org/statetools/index.cfm)) for a wide range of topics to help you find important environmental compliance information specific to your state.

## **EPA Websites**

EPA has several Internet sites that provide useful compliance assistance information and materials for small businesses. If you don't have access to the Internet at your business, many public libraries provide access to the Internet at minimal or no cost.

### **EPA's Home Page**

[www.epa.gov](http://www.epa.gov)

### **Small Business Gateway**

[www.epa.gov/smallbusiness](http://www.epa.gov/smallbusiness)

### **Compliance Assistance Home Page**

[www.epa.gov/compliance/assistance](http://www.epa.gov/compliance/assistance)

### **Office of Enforcement and Compliance Assurance**

[www.epa.gov/compliance](http://www.epa.gov/compliance)

### **Voluntary Partnership Programs**

[www.epa.gov/partners](http://www.epa.gov/partners)



## U.S. EPA SMALL BUSINESS RESOURCES

### Hotlines, Helplines & Clearinghouses

([www.epa.gov/epahome/hotline.htm](http://www.epa.gov/epahome/hotline.htm))

EPA sponsors many free hotlines and clearinghouses that provide convenient assistance regarding environmental requirements. A few examples are listed below:

#### Clean Air Technology Center

([www.epa.gov/ttn/calctc](http://www.epa.gov/ttn/calctc) or 1-919-541-0800)

#### Emergency Planning and Community Right-To-Know Act

([www.epa.gov/superfund/resources/infocenter/epcra.htm](http://www.epa.gov/superfund/resources/infocenter/epcra.htm) or 1-800-424-9346)

**EPA's Small Business Ombudsman Hotline** provides regulatory and technical assistance information.

([www.epa.gov/sbo](http://www.epa.gov/sbo) or 1-800-368-5888)

#### The National Environmental Compliance Assistance

**Clearinghouse** provides quick access to compliance assistance tools, contacts, and planned activities from the U.S. EPA, states, and other compliance assistance providers

([www.epa.gov/clearinghouse](http://www.epa.gov/clearinghouse))

**National Response Center** to report oil and hazardous substance spills.

([www.nrc.uscg.mil](http://www.nrc.uscg.mil) or 1-800-424-8802)

#### Pollution Prevention Information Clearinghouse

([www.epa.gov/opptintr/ppic](http://www.epa.gov/opptintr/ppic) or 1-202-566-0799)

#### Safe Drinking Water Hotline

([www.epa.gov/safewater/hotline/index.html](http://www.epa.gov/safewater/hotline/index.html) or 1-800-426-4791)

#### Stratospheric Ozone Refrigerants Information

([www.epa.gov/ozone](http://www.epa.gov/ozone) or 1-800-296-1996)

**Toxics Assistance Information Service** also includes asbestos inquiries

(1-202-554-1404)

#### Wetlands Helpline

([www.epa.gov/owow/wetlands/wetline.html](http://www.epa.gov/owow/wetlands/wetline.html) or 1-800-832-7828)

### State Agencies

Many state agencies have established compliance assistance programs that provide on-site and other types of assistance. Contact your local state environmental agency for more information or the following two resources:

#### EPA's Small Business Ombudsman

([www.epa.gov/sbo](http://www.epa.gov/sbo) or 1-800-368-5888)

#### Small Business Environmental Homepage

([www.smallbiz-enviroweb.org](http://www.smallbiz-enviroweb.org) or 1-724-452-4722)

### Compliance Incentives

EPA provides incentives for environmental compliance. By participating in compliance assistance programs or voluntarily disclosing and promptly correcting violations before an enforcement action has been initiated,

businesses may be eligible for penalty waivers or reductions. EPA has two policies that potentially apply to small businesses:

#### The Small Business Compliance Policy

([www.epa.gov/compliance/incentives/smallbusiness](http://www.epa.gov/compliance/incentives/smallbusiness))

#### Audit Policy

([www.epa.gov/compliance/incentives/auditing](http://www.epa.gov/compliance/incentives/auditing))

### Commenting on Federal Enforcement Actions and Compliance Activities

The Small Business Regulatory Enforcement Fairness Act (SBREFA) established an SBA Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. If you believe that you fall within the Small Business Administration's definition of a small business (based on your North American Industry Classification System (NAICS) designation, number of employees, or annual receipts, defined at 13 C.F.R. 121.201; in most cases, this means a business with 500 or fewer employees), and wish to comment on federal enforcement and compliance activities, call the SBREFA Ombudsman's toll-free number at 1-888-REG-FAIR (1-888-734-3247).

Every small business that is the subject of an enforcement or compliance action is entitled to comment on the Agency's actions without fear of retaliation. EPA employees are prohibited from using enforcement or any other means of retaliation against any member of the regulated community in response to comments made under SBREFA.

### Your Duty to Comply

If you receive compliance assistance or submit comments to the SBREFA Ombudsman or Regional Fairness Boards, you still have the duty to comply with the law, including providing timely responses to EPA information requests, administrative or civil complaints, other enforcement actions or communications. The assistance information and comment processes do not give you any new rights or defenses in any enforcement action. These processes also do not affect EPA's obligation to protect public health or the environment under any of the environmental statutes it enforces, including the right to take emergency remedial or emergency response actions when appropriate. Those decisions will be based on the facts in each situation. The SBREFA Ombudsman and Fairness Boards do not participate in resolving EPA's enforcement actions. Also, remember that to preserve your rights, you need to comply with all rules governing the enforcement process.

***EPA is disseminating this information to you without making a determination that your business or organization is a small business as defined by Section 222 of the Small Business Regulatory Enforcement Fairness Act or related provisions.***

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

**IN THE MATTER OF:**

General Iron Industries, Inc.  
Chicago, Illinois

Proceedings Pursuant to  
Section 113(a)(1) of the  
Clean Air Act, 42 U.S.C.  
§ 7413(a)(1)

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**NOTICE OF VIOLATION**

**EPA-5-11-IL-01**

**NOTICE OF VIOLATION**

The U.S. Environmental Protection Agency (U.S. EPA) is issuing this Notice of Violation (NOV) under Section 113(a)(1) of the Clean Air Act (CAA or the Act), 42 U.S.C. § 7413(a)(1). U.S. EPA finds that General Iron Industries, Inc. (General Iron or you) is violating the Illinois State Implementation Plan (SIP), as follows:

**Explanation of Violations**

The following statutory and regulatory background, factual background and violations are relevant to this NOV:

**Statutory and Regulatory Background**

1. Section 108(a) of the Act, 42 U.S.C. § 7408(a), requires U.S. EPA to identify and prepare air quality criteria for each air pollutant, emissions of which may endanger public health or welfare and the presence of which results from numerous or diverse mobile or stationary sources. For each such "criteria" pollutant, Section 109 of the Act, 42 U.S.C. § 7409, requires U.S. EPA to promulgate national ambient air quality standards (NAAQS) requisite to protect the public health and welfare. Pursuant to Sections 108 and 09, U.S. EPA has identified and promulgated NAAQS for fine particulate matter that is 2.5 micrometers in diameter and smaller (PM<sub>2.5</sub> (1997)) and certain other pollutants.
2. Under Section 107(d) of the Act, 42 U.S.C. § 7407(d), each state is required to designate those areas within its boundaries where the air quality is better or worse than the NAAQS for each criteria pollutant, or where the air quality cannot be classified due to insufficient data. An area that meets the NAAQS for a particular pollutant is an "attainment" area. An area that does not meet the NAAQS is a "non-attainment" area. An area that cannot be classified due to insufficient data is "unclassifiable."
3. Section 110 of the Act, 42 U.S.C. § 7410, requires each state to adopt and submit to U.S. EPA for approval a SIP that provides for the attainment and maintenance of the NAAQS.

4. Upon EPA approval, SIP requirements are federally enforceable under Section 113 of the Act, 42 U.S.C. §§ 7413(a), (b); 40 C.F.R. § 52.23.
5. U.S. EPA approved Title 35 of the Illinois Administrative Code (35 IAC) 212.301, governing fugitive particulate matter emissions, as part of the Illinois SIP on February 21, 1980. 45 Fed. Reg. 11493.
6. 35 IAC 212.301 provides that no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the emission source.
7. U.S. EPA approved 35 IAC 212.314, governing the fugitive particulate matter emissions exception for excess wind speed, as part of the Illinois SIP on February 21, 1980. 45 Fed. Reg. 11493.
8. 35 IAC 212.314 provides 35 IAC 212.301 shall not apply when the wind speed is greater than 25 miles per hour (40.2 kilometers per hour). Determination of wind speed for the purposes of the rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site.
9. U.S. EPA approved Illinois Pollution Control Board (PCB) Rule 102, which includes 35 IAC 201.141, as part of the Illinois SIP on May 31, 1972. 37 Fed. Reg. 10842.
10. 35 IAC 201.141 requires that no person "cause or threaten or allow the discharge or emission of any contaminant into the environment in any State so as, either alone or in combination with contaminants from other sources, to cause or tend to cause air pollution in Illinois. . . ."
11. "Air Pollution" is defined as "the presence in the atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life, to health, or to property, or to unreasonably interfere with the enjoyment of life or property." 35 IAC 201.102.
12. Under Section 113(a)(1)(A) of the Act, 42 U.S.C. § 7413(a)(1)(A), the Administrator of U.S. EPA may issue an order requiring compliance to any person who has violated or is violating a SIP. The Administrator has delegated this authority to the Director of the Air and Radiation Division.

#### Factual Background

13. General Iron owns and operates a scrap and waste materials processing facility at 1909 N. Clifton Avenue in Chicago, Illinois (the facility).
14. Illinois Environmental Protection Agency issued an operating permit to General Iron on September 1, 2004, which allows for the operation of two metal shredders that are controlled by a water suppression system at the facility.

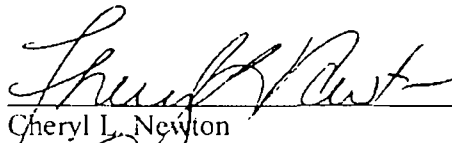
15. The shredders each constitute a part or activity at a stationary source that emits or has the potential to emit any air pollutant.
16. Each shredder is an emission unit, as that term is defined 35 IAC 211.1950.
17. Emissions from the facility's shredders are subject to 35 IAC 212.301 of the Illinois SIP, which governs fugitive particulate matter emissions.
18. Cook County is presently designated as non-attainment for the NAAQS for PM<sub>2.5</sub> (1997). 40 C.F.R. §§ 81.301, 81.304.
19. The facility is located in an Environmental Justice designated area.
20. Over the past three months, U.S. EPA has received smoke and odor complaints regarding General Iron.
21. On November 1 and 9, 2010, a U.S. EPA enforcement officer conducted site surveillance of the facility.
22. On both surveillance dates, wind speed measured by a National Oceanic and Atmospheric Administration weather station located at Midway Airport in Chicago showed that wind speeds were less than 25 miles per hour.
23. On the morning of November 9, 2010, the U.S. EPA inspector observed fugitive particulate matter from the shredder crossing beyond the property line of the emission source at the facility.

Violation

24. The presence of fugitive particulate emissions beyond the property line of the facility is a violation of 35 IAC 212.301.
25. The General Iron facility caused, threatened or allowed the discharge or emission of contaminants into the air which tended to cause air pollution, in violation of Illinois PCB Rule 102 (35 IAC 201.141).
26. These violations also constitute violations of Section 113 of the CAA.

Date

12/16/10

  
Cheryl L. Newton  
Director  
Air and Radiation Division

**CERTIFICATE OF MAILING**

I, Betty Williams, certify that I sent a Notice of Violation, No. EPA-5-11-IL-01, by

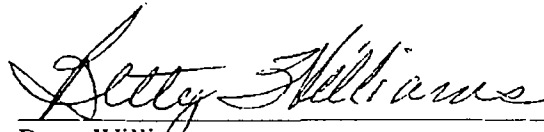
Certified Mail, Return Receipt Requested, to:

Marilyn Labkon  
President-Secretary-Treasurer  
General Iron Industries, Inc.  
1909 N. Clifton Ave.  
Chicago, Illinois 60614

I also certify that I sent copies of the Notice of Violation by first-class mail to:

Ray Pilapil, Manager  
Bureau of Air, Compliance and Enforcement Section  
Illinois Environmental Protection Agency  
P.O. Box 19506  
Springfield, Illinois 62794

On the 16<sup>th</sup> day of December 2010.



Betty Williams  
Administrative Program Assistant  
AECAS (IL/IN)

CERTIFIED MAIL RECEIPT NUMBER:

7009 16800000 7646 5295

## **SAT Initiative: Saint Josaphat School (Chicago, Illinois)**

This document describes the analysis of air monitoring and other data collected under EPA's initiative to assess potentially elevated air toxics levels at some of our nation's schools. The document has been prepared for technical audiences (e.g., risk assessors, meteorologists) and their management. It is intended to describe the technical analysis of data collected for this school in clear, but generally technical, terms. A summary of this analysis is presented on the page focused on this school on EPA's website ([www.epa.gov/schoolair](http://www.epa.gov/schoolair)).

### **I. Executive Summary**

- Air monitoring has been conducted at the Saint Josaphat School as part of the EPA initiative to monitor specific air toxics in the outdoor air around priority schools in 22 states and 2 tribal areas.
- This school was selected for monitoring based on information indicating the potential for elevated ambient concentrations of manganese, lead, and hexavalent chromium in air outside the school from a nearby steel production facility and leather manufacturer. That information included EPA's recently completed 2002 National-Scale Air Toxics Assessment (NATA) and a USA Today analysis based on the 2005 Toxics Release Inventory.
- Air monitoring for hexavalent chromium, manganese, and other metals in particulate matter less than 10 microns (PM<sub>10</sub>), as well as lead and other metals in total suspended particles (TSP) was performed from August 17, 2009 through October 22, 2009.
- Measured levels of manganese (PM<sub>10</sub>), lead (TSP), and hexavalent chromium, and associated longer-term concentration estimates are below levels of concern for short- or long-term exposures. They are not as high as suggested by the information available prior to monitoring.
- The levels of manganese (PM<sub>10</sub>), lead (TSP), and hexavalent chromium measured in the outdoor air at this school indicate influence of a nearby source or sources.
- Based on the analysis described here, EPA will not extend air toxics monitoring at this school.
- The Illinois Environmental Protection Agency (IEPA) will continue to oversee industrial facilities in the area through air permits and other programs.

### **II. Background on this Initiative**

As part of an EPA initiative to implement Administrator Lisa Jackson's commitment to assess potentially elevated air toxics levels at some of our nation's schools, EPA and state and local air pollution control agencies are monitoring specific (key) air toxics in the outdoor air around priority schools in 22 states and 2 tribal areas (<http://www.epa.gov/schoolair/schools.html>).

- The schools selected for monitoring include some schools that are near large industries that are sources of air toxics, and some schools that are in urban areas, where emissions

of air toxics come from a mix of large and small industries, cars, trucks, buses and other sources.

- EPA selected schools based on information available to us about air pollution in the vicinity of the school, including results of the 2002 National-Scale Air Toxics Assessment (NATA), results from a 2008 USA Today analysis on air toxics at schools, and information from state and local air agencies. The analysis by USA Today involved use of EPA's Risk Screening Environmental Indicators tool and Toxics Release Inventory (TRI) for 2005.
  - Available information had raised some questions about air quality near these schools that EPA concluded merited investigation. In many cases, the information indicated that estimated long-term average concentrations of one or more air toxics were above the upper end of the range that EPA generally considers as acceptable (e.g., above 1-in-10,000 cancer risk for carcinogens).
- Monitors are placed at each school for approximately 60 days, and take air samples on at least 10 different days during that time. The samples are analyzed for specific air toxics identified for monitoring at the school (i.e., key pollutants).<sup>1</sup>
- These monitoring results and other information collected at each school during this initiative allow us to:
  - assess specific air toxics levels occurring at these sites and associated estimates of longer-term concentrations in light of health risk-based criteria for long-term exposures,
  - better understand, in many cases, potential contributions from nearby sources to key air toxics concentrations at the schools,
  - consider what next steps might be appropriate to better understand and address air toxics at the school, and
  - improve the information and methods we will use in the future (e.g., NATA) for estimating air toxics concentrations in communities across the U.S.

Assessment of air quality under this initiative is specific to the air toxics identified for monitoring at each school. This initiative is being implemented in addition to ongoing state, local and national air quality monitoring and assessment activities, including those focused on criteria pollutants (e.g., ozone and particulate matter) or existing, more extensive, air toxics programs.

Several technical documents prepared for this project provide further details on aspects of monitoring and data interpretation and are available on the EPA website (e.g., [www.epa.gov/schoolair/techinfo.html](http://www.epa.gov/schoolair/techinfo.html)). The full titles of these documents are provided here:

- *School Air Toxics Ambient Monitoring Plan*
- *Quality Assurance Project Plan For the EPA School Air Toxics Monitoring Program*
- *Schools Air Toxics Monitoring Activity (2009). Uses of Health Effects Information in Evaluating Sample Results*

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<sup>1</sup> In analyzing air samples for these key pollutants, samples are also being analyzed for some additional pollutants that are routinely included in the analytical methods for the key pollutants



Information on health effects of air toxics being monitored<sup>2</sup> and educational materials describing risk concepts<sup>3</sup> are also available from EPA's website.

### **III. Basis for Selecting this School and the Air Monitoring Conducted**

This school was selected for monitoring in consultation with the State air agency, Illinois Environmental Protection Agency. We were interested in evaluating the ambient concentrations of manganese, lead, and hexavalent chromium in air outside the school because EPA's 2002 NATA analysis indicated the potential for levels of concern due to emission estimates of these pollutants in the 2002 National Emissions Inventory for a nearby steel production facility and a nearby leather manufacturer. Additionally, we were interested in evaluating the ambient concentration of manganese because this pollutant was identified in the USA Today analysis of this school based on emissions in the 2005 Toxic Release Inventory for the nearby steel production facility and the leather manufacturer.

Monitoring commenced at this school on August 17, 2009 and continued through October 22, 2009. During this period, ten samples of airborne particles were collected using a PM<sub>10</sub> sampler<sup>4</sup> and twelve samples were collected using a TSP sampler. The samples were analyzed for manganese (PM<sub>10</sub>) and lead TSP (two of the key pollutants at this school) and for a small standardized set of additional metals that are routinely included in the analytical methods for the key pollutants. Additional air samples were collected and analyzed for hexavalent chromium (another key pollutant at this school). All sampling methodologies are described in EPA's schools air toxics monitoring plan ([www.epa.gov/schoolair/techinfo.html](http://www.epa.gov/schoolair/techinfo.html)).<sup>5</sup>

### **IV. Monitoring Results and Analysis**

#### **A. Background for the SAT Analysis**

The majority of schools being monitored in this initiative were selected based on modeling analyses that indicated the potential for annual average air concentrations of some specific (key) hazardous air pollutants (HAPs or air toxics)<sup>6</sup> to be of particular concern based on approaches that are commonly used in the air toxics program for considering potential for long-term risk. For example, such analyses suggested annual average concentrations of some air toxics were greater than long-term risk-based concentrations associated with an additional cancer risk greater than 10-in-10,000 or a hazard index on the order of or above 10. To make projections of air concentrations, the modeling analyses combined estimates of air toxics emissions from

<sup>2</sup> For example, <http://www.epa.gov/schoolair/pollutants.html>, [http://www.epa.gov/ttn/fera/risk\\_atoxic.html](http://www.epa.gov/ttn/fera/risk_atoxic.html).

<sup>3</sup> For example, [http://www.epa.gov/ttn/atw/3\\_90\\_022.html](http://www.epa.gov/ttn/atw/3_90_022.html), [http://www.epa.gov/ttn/atw/3\\_90\\_024.html](http://www.epa.gov/ttn/atw/3_90_024.html).

<sup>4</sup> In general, this sampler collects airborne particles with a diameter of 10 microns or smaller, more of which would be considered to be in the respirable range which is what the health-based comparison level for manganese is based on.

<sup>5</sup> IEPA staff operated the monitors and sent the sample filters to the analytical laboratory under contract to EPA.

<sup>6</sup> The term hazardous air pollutants (commonly called HAPs or air toxics) refers to pollutants identified in section 112(b) of the Clean Air Act which are the focus of regulatory actions involving stationary sources described by CAA section 112 and are distinguished from the six pollutants for which criteria and national ambient air quality standards (NAAQS) are developed as described in section 108. One of the criteria pollutants, lead, is also represented, as lead compounds, on the HAP list.

industrial, motor vehicle and other sources, with past measurements of winds, and other meteorological factors that can influence air concentrations, from a weather station in the general area. In some cases, the weather station was very close (within a few miles), but in other cases, it was much further away (e.g., up to 60 miles), which may contribute to quite different conditions being modeled than actually exist at the school. The modeling analyses are intended to be used to prioritize locations for further investigation.

The primary objective of this initiative is to investigate - through monitoring air concentrations of key air toxics at each school over a 2-3 month period - whether levels measured and associated longer-term concentration estimates are of a magnitude, in light of health risk-based criteria, for which follow-up activities may need to be considered. To evaluate the monitoring results consistent with this objective, we developed health risk-based air concentrations (the long-term comparison levels summarized in Appendix A) for the monitored air toxics using established EPA methodology and practices for health risk assessment<sup>7</sup> and, in the case of cancer risk, consistent with the implied level of risk considered in identifying schools for monitoring. Consistent with the long-term or chronic focus of the modeling analyses, based on which these schools were selected for monitoring, we have analyzed the full record of concentrations of air toxics measured at this school, using routine statistical tools, to derive a 95 percent confidence interval<sup>8</sup> for the estimate of the longer-term average concentration of each of these pollutants. In this project, we are reporting all actual numerical values for pollutant concentrations including any values below method detection limit (MDL).<sup>9</sup> Additionally, a value of 0.0 is used when a measured pollutant has no value detected (ND). The projected range for the longer-term concentration estimate for each chemical (most particularly the upper end of the range) is compared to the long-term comparison levels. These long-term comparison levels conservatively presume continuous (all-day, all-year) exposure over a lifetime. The analysis of the air concentrations also includes a consideration of the potential for cumulative multiple pollutant impacts.<sup>10</sup> In general, where the monitoring results indicate estimates of longer-term average concentrations that are above the comparison levels - i.e., above the cancer-based

<sup>7</sup> While this EPA initiative will rely on EPA methodology, practices, assessments and risk policy considerations, we recognize that individual state methods, practices and policies may differ and subsequent analyses of the monitoring data by state agencies may draw additional or varying conclusions.

<sup>8</sup> When data are available for only a portion of the period of interest (e.g., samples not collected on every day during this period), statisticians commonly calculate the 95% confidence interval around the dataset mean (or average) in order to have a conservative idea of how high or low the "true" mean may be. More specifically, this interval is the range in which the mean for the complete period of interest is expected to fall 95% of the time (95% probability is commonly used by statisticians). The interval includes an equal amount of quantities above and below the sample dataset mean. The interval that includes these quantities is calculated using a formula that takes into account the size of the dataset (i.e., the 'n') as well as the amount by which the individual data values vary from the dataset mean (i.e., the "standard deviation"). This calculation yields larger confidence intervals for smaller datasets as well as ones with more variable data points. For example, a dataset including {1.0, 3.0, and 5.0}, results in a mean of 3.0 and a 95% confidence interval of 3.0 +/- ~5 (or -2.0 to 8.0). For comparison purposes, a dataset including {2.5, 3 and 3.5}, results in a mean of 3.0 and a 95% confidence interval of 3.0 +/- ~1.2 (or 1.8 to 4.2). The smaller variation within the data in the second set of values causes the second confidence interval to be smaller.

<sup>9</sup> Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the pollutant concentration is greater than zero and is determined from the analysis of a sample in a given matrix containing the pollutant.

<sup>10</sup> As this analysis of a 2-3 month monitoring dataset is not intended to be a full risk assessment, consideration of potential multiple pollutant impacts may differ among sites. For example, in instances where no individual pollutant appears to be present above its comparison level, we will also check for the presence of multiple pollutants at levels just below their respective comparison levels (giving a higher priority to such instances).

comparison levels or notably above the noncancer-based comparison levels - we will consider the need for follow-up actions such as:

- Additional monitoring of air concentrations and/or meteorology in the area,
- Evaluation of potentially contributing sources to help us confirm their emissions and identify what options (regulatory and otherwise) may be available to us to achieve emissions reductions, and
- Evaluation of actions being taken or planned nationally, regionally or locally that may achieve emission and/or exposure reductions. An example of this would be the actions taken to address the type of ubiquitous emissions that come from mobile sources.

We have further analyzed the dataset to describe what it indicates in light of some other criteria and information commonly used in prioritizing state, local and national air toxics program activities. State, local and national programs often develop long-term monitoring datasets in order to better characterize pollutants near particular sources. The 2-3 month dataset developed under this initiative will be helpful to those programs in setting priorities for longer term monitoring projects. The intent of this analysis is to make this 2-3 month monitoring dataset as useful as possible to state, local and national air toxics programs in their longer term efforts to improve air quality nationally. To that end, this analysis:

- Describes the air toxics measurements in terms of potential longer-term concentrations, and, as available, compares the measurements at this school to monitoring data from national monitoring programs.
- Describes the meteorological data by considering conditions on sampling days as compared to those over all the days within the 2-3 month monitoring period and what conditions might be expected over the longer-term (as indicated, for example, by information from a nearby weather station).
- Describes available information regarding activities and emissions at the nearby source(s) of interest, such as that obtained from public databases such as TRI and/or consultation with the local air pollution authority.

## **B. Chemical Concentrations**

We developed two types of long-term health risk-related comparison levels (summarized in Appendix A below) to address our primary objective. The primary objective is to investigate through the monitoring data collected for key pollutants at the school, whether pollutant levels measured and associated longer-term concentration estimates are elevated enough in comparison with health risk-based criteria to indicate that follow-up activities be considered. These comparison levels conservatively presume continuous (all-day, all-year) exposure over a lifetime.

In developing or identifying these comparison levels, we have given priority to use of relevant and appropriate air standards and EPA risk assessment guidance and precedents.<sup>11</sup> These levels are based upon health effects information, exposure concentrations and risk estimates developed and assessed by EPA, the U.S. Agency for Toxic Substances and Disease Registry, and the

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<sup>11</sup> This is described in detail in *Schools Air Toxics Monitoring Activity (2009), Uses of Health Effects Information in Evaluating Sample Results*

California EPA. These agencies recognize the need to account for potential differences in sensitivity or susceptibility of different groups (e.g., asthmatics) or lifestyles/ages (e.g., young children or the elderly) to a particular pollutant's effects so that the resulting comparison levels are relevant for these potentially sensitive groups as well as the broader population.

In addition to evaluating individual pollutants with regard to their corresponding comparison levels, we also considered the potential for cumulative impacts from multiple pollutants in cases where individual pollutant levels fall below the comparison levels but where multiple pollutant mean concentrations are within an order of magnitude of their comparison levels.

Using the analysis approach described above, we analyzed the chemical concentration data (Table 1 and Figures 1a-1c) with regard to the areas of interest identified below.

**Key findings** drawn from the information on chemical concentrations and the considerations discussed below include:

- The air sampling data collected over the 2-month sampling period and the related longer-term concentration estimates, while somewhat indicating influence from nearby sources of hexavalent chromium, lead, and manganese emissions, are below concentrations of significant concern for short- or long-term exposures.

Manganese, key pollutant:

- Do the monitoring data indicate influence from a nearby source?
  - Yes. The data collected include some manganese (PM<sub>10</sub>) concentrations that are higher than concentrations commonly observed in other locations nationally.<sup>12</sup>
- Do the monitoring data indicate elevated levels that pose significant long-term health concerns?
  - No. The monitoring data for manganese do not indicate levels of health concern for long-term exposures.
    - The estimate of longer-term manganese (PM<sub>10</sub>) concentration (i.e., the upper bound of the 95 percent confidence interval on the mean of the dataset) is below the noncancer-based long-term comparison level (Table 1).<sup>13</sup> This comparison level is a continuous exposure concentration (24 hours a day, all year, over a lifetime) associated with little risk of adverse effect; it is not an exposure concentration at which effects have been observed or are predicted to occur.<sup>14</sup>

<sup>12</sup> For example, two of the concentrations at this site (Table 2) were higher than 75 percent of samples collected at the National Air Toxics Trends Stations (NATTS) program from 2004-2008 (Appendix B). Because these NATTS sites are generally sited so as not to be influenced by specific nearby sources, EPA is using the 75<sup>th</sup> percentile point of concentration at these sites as a benchmark for indicating potential influence from a source nearby to this school.

<sup>13</sup> The upper end of the interval is nearly two times the mean of the monitoring data, but only 22% of the noncancer-based long-term comparison level.

<sup>14</sup> The comparison level for manganese is based on the RfC. Manganese concentrations at which health effects have been documented are higher than the RfC (<http://www.atsdr.cdc.gov/facts151.html>, <http://www.epa.gov/ttn/atw/hlthef/manganes.html#conversion>)

- As manganese has not been found to be carcinogenic, it has no cancer-based comparison level.<sup>15</sup>
- Additionally, we did not identify any concerns regarding short-term exposures as each individual measurement is below the individual sample screening level for manganese (which is based on consideration of exposure all day, every day over a period ranging up to at least a couple of weeks, and longer for some pollutants).<sup>11</sup>
- In summary, the individual measurements do not indicate concentrations of concern for short-term exposures and the combined contributions of all individual measurements in the estimate of longer-term concentration do not indicate a level of concern for long-term exposure.

#### Lead, key pollutant:

- Do the monitoring data indicate influence from a nearby source?
  - Yes. The data collected include some lead (TSP) concentrations that were higher than other on-site measurements collected during the monitoring period.
- Do the monitoring data indicate elevated levels that pose significant long-term health concerns?
  - No. The monitoring data for lead (TSP) do not indicate levels of health concern for long-term exposures.
    - The estimate of longer-term lead (TSP) concentration (i.e., the upper bound of the 95 percent confidence interval on the mean of the dataset) is substantially below the long-term comparison level (Table 1).<sup>16</sup>
  - Additionally, we did not identify any concerns regarding short-term exposures as each individual measurement is below the individual sample screening level for lead.<sup>11</sup>
  - In summary, none of the individual measurements indicate concentrations of concern for short-term exposures and the combined contributions of all individual measurements in the estimate of longer-term concentration do not indicate a level of concern for long-term exposure.

#### Hexavalent Chromium, key pollutant:

- Do the monitoring data indicate influence from a nearby source?
  - Yes. The data collected include some hexavalent chromium concentrations that are higher than concentrations commonly observed in other locations nationally.<sup>17</sup>

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<sup>15</sup> [www.epa.gov/iris](http://www.epa.gov/iris)

<sup>16</sup> The upper end of the interval is nearly one-and-a-half times the mean of the monitoring data, but less than 7% of the noncancer-based long-term comparison level. This comparison value for lead is the level of the national ambient air quality standard, which is in terms of a 3-month average level of lead in total suspended particles.

<sup>17</sup> For example, two of the concentrations at this site (Table 2) were higher than 75 percent of samples collected at the National Air Toxics Trends Stations (NATTS) from 2004-2008 (Appendix B). Because these NATTS sites are generally sited so as not to be influenced by specific nearby sources, EPA is using the 75<sup>th</sup> percentile point of concentration at these sites as a benchmark for indicating potential influence from a source nearby to this school.

- Do the monitoring data indicate elevated levels that pose significant long-term health concerns?
  - No. The monitoring data for hexavalent chromium do not indicate levels of significant health concern for long-term exposures.
    - The estimate of longer-term hexavalent chromium concentration (i.e., the upper bound of the 95 percent confidence interval on the mean of the dataset) is below both of the long-term comparison levels (Table 1).<sup>18</sup> These comparison levels are continuous exposure concentrations (24 hours a day, all year, over a lifetime).
    - Further, the longer-term concentration estimate is more than 100-fold lower than the cancer-based comparison level, indicating the longer-term estimate is below a continuous (24 hours a day, 7 days a week) lifetime exposure concentration associated with 1-in-1,000,000 additional cancer risk.
  - Additionally, we did not identify any concerns regarding short-term exposures as each individual measurement is below the individual sample screening level for hexavalent chromium (which is based on consideration of exposure all day, every day over a period ranging up to at least a couple of weeks and longer for some pollutants).<sup>11</sup>
  - In summary, the individual measurements do not indicate concentrations of concern for short-term exposures and the combined contributions of all individual measurements in the estimate of longer-term concentration do not indicate a level of significant concern for long-term exposure.

#### Other Air Toxics

- Do the monitoring data indicate elevated levels of any other air toxics (or HAPs) that pose significant long-term health concerns?
  - No. The monitoring data show low levels of the other HAPs monitored, with longer-term concentration estimates for these HAPs below their long-term comparison levels (Appendix C). Additionally each individual measurement for these pollutants is below the individual sample screening level for that pollutant.<sup>11</sup>

#### Multiple Pollutants:

- Do the data collected for the air toxics monitored indicate the potential for other monitored pollutants to be present at levels that in combination with the key pollutant levels indicate an increased potential for cumulative impacts of significant concern (e.g., that might warrant further investigation)?

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<sup>18</sup> The upper end of the interval is nearly two times the mean of the monitoring data, but less than 1% of the cancer-based long-term comparison level

- No. The data collected for the key and other air toxics and the associated longer-term concentration estimates do not together pose significant concerns for cumulative health risk from these pollutants (Appendix C).<sup>19</sup>

### C. Wind and Other Meteorological Data

At each school monitored as part of this initiative, we are collecting meteorological data, minimally for wind speed and direction, during the sampling period. Additionally, we have identified the nearest National Weather Service (NWS) station at which a longer record is available.

In reviewing these data at each school in this initiative, we are considering if these data indicate that the general pattern of winds on our sampling dates are significantly different from those occurring across the full sampling period or from those expected over the longer term. Additionally, we are noting, particularly for school sites where the measured chemical concentrations show little indication of influence from a nearby source, whether wind conditions on some portion of the sampling dates were indicative of a potential to capture contributions from the nearby “key” source in the air sample collected.

The meteorological station at the Saint Josaphat School collected wind speed and wind direction measurements beginning August 13, 2009, continuing through the sampling period (August 17, 2009-October 22, 2009), and ending April 8, 2010. As a result, on-site data for these meteorological parameters are available for all dates of sample collection, and also for a period before and after the sampling period, producing a continuous record of approximately eight months of on-site meteorological data. The meteorological data collected at the school on sample days are presented in Figures 2a-2c and Table 2.

The nearest NWS station is at Chicago-Midway International Airport in Chicago, IL. This station is approximately 10.37 miles south-southwest of the school. Measurements taken at that station include wind, temperature and precipitation. Wind speed and direction data collected at the Chicago-Midway International Airport NWS station have been summarized in Table 2 and Appendix E.

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<sup>19</sup> We note that this initiative is focused on investigation for a school-specific set of key pollutants indicated by previous analyses (and a small set of others for which measurements are obtained in the same analysis). Combined impacts of pollutants or stressors other than those monitored in this project are a broader area of consideration in other EPA activities. General information on additional air pollutants is available at <http://www.epa.gov/air/airpollutants.html>

**Key findings** drawn from this information and the considerations discussed below include:

- Both the sampling results and the on-site wind data indicate that some of the air samples were collected on days when the nearby key source or sources were contributing to conditions at the school location.
  - The wind patterns at the monitoring site across sampling dates are generally similar to those observed across the record of on-site meteorological data during the sampling period.
  - Our ability to provide a confident characterization of the wind flow patterns at the monitoring site over the long-term is somewhat limited, although the NWS site in Chicago-Midway International Airport appears to somewhat represent the specific wind flow patterns at the school location during the sampling time period.
  - Although we lack long-term wind data at the monitoring site, the wind pattern at the NWS site during the sampling period is somewhat similar to the historical long-term wind flow pattern at that same NWS site. This and the 8-month wind data at the school suggest that, on a regional scale, the 2-month sampling period may be representative of year-round wind patterns.
- 
- What is the direction of the key sources of manganese, lead, and hexavalent chromium emissions in relation to the school location?
    - The nearby industrial facilities emitting the key pollutants into the air (described in section III above) lie less than one mile south and southwest of the school. In addition to the primary source of interest (a leather manufacturer), a steel production facility and several metal plating facilities were identified as potentially emitting the key pollutants.
    - Using the property boundaries of the full facilities (in lieu of information regarding the location of specific sources of manganese, lead, and hexavalent chromium emissions at the facility), we have identified an approximate range of wind directions to use in considering the potential influence of these facilities on air concentrations at the school.
    - This general range of wind directions, from approximately 170 to 240 degrees, is referred to here as the expected zone of source influence (ZOI).
  - On days the air samples were collected, how often did wind come from direction of the key source?
    - There were four sampling days in which a portion of the winds were from the expected ZOI (Table 2, Figures 2a-2c).
  - How do wind patterns on the air monitoring days compare to those across the complete monitoring period and what might be expected over the longer term at the school location?



- Wind patterns across the air monitoring days appear to be somewhat similar to those observed over the record of on-site meteorological data during the sampling period.
- We note that wind patterns at the nearest NWS station (at Chicago-Midway International Airport) during the sampling period are somewhat similar to those recorded at the NWS station over the long-term (2002-2007 period; Appendix E), supporting the idea that regional meteorological patterns in the area during the sampling period were consistent with long-term patterns. However, there is some uncertainty as to whether this would be the case at the school location because the general wind patterns at the school location are only somewhat similar to the general wind patterns at the Chicago-Midway International Airport (see below).
- How do wind patterns at the school compare to those at the Chicago-Midway International Airport station, particularly with regard to prevalent wind directions and the direction of the key source?
  - During the sampling period for which data are available both at the school site and at the reference NWS station (approximately two months), prevalent winds at the school site are predominantly from the northeast, northwest, and southwest, while those at the NWS station are somewhat more from the east and west to southwest. The windroses for the two sites during the sampling period (Figures 2a-2c and Appendix E) show slight differences in wind flow patterns.
- Are there other meteorological patterns that may influence the measured concentrations at the school monitoring site?
  - No. We did not observe other meteorological patterns that may influence the measured concentrations at the school monitoring site.

## V. Key Source Information

- Was the source operating as usual during the monitoring period?
  - The nearby sources of chromium, manganese, and lead (described in section III above) have Title V air permits issued by IEPA that includes operating requirements.<sup>20</sup>
  - Information from IEPA indicates that the leather manufacturing facility was operating at approximately 8% capacity during the sampling period and has been operating at that level for the past few years.
  - Information from IEPA indicates that the steel production facility was operating at approximately 61% capacity during the sampling period.
  - The most recently available manganese emissions for the steel production facility of interest (2008 TRI) are lower than those relied upon in previous modeling analyses for this area (e.g., 2005 TRI). In addition, with IEPA approval, the leather manufacturing facility is requesting a significant downward revision of their 2008

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<sup>20</sup> Operating permits, which are issued to air pollution sources under the Clean Air Act, are described at: <http://www.epa.gov/air/oaqps/permits/>

TRI manganese emissions indicating that they are lower than those relied upon in the previous modeling analysis for the area (2002 NATA). The most recently available lead emissions for the primary sources of interest (2005 NEI and 2008 TRI) are lower at one source (leather manufacturer) and higher at the other source (steel production facility) than those relied upon in the previous modeling analysis for this area (e.g., 2002 NATA). The most recently available chromium emissions for both primary sources of interest (2008 TRI) are lower than those relied upon in previous modeling analysis for this area (e.g., 2002 NATA and 2005 TRI).

## **VI. Integrated Summary and Next Steps**

### **A. Summary of Key Findings**

1. What are the key HAPs for this school?
  - Manganese, lead (TSP), and hexavalent chromium are the key HAPs for this school, identified based on emissions information considered in identifying the school for monitoring. The ambient air concentrations on a few days during the monitoring period indicate contributions from sources in the area.
2. Do the data collected at this school indicate an elevated level of concern, as implied by information that led to identifying this school for monitoring?
  - No. The levels measured and associated longer-term concentration estimates are not as high as that suggested by the information available prior to monitoring and are below levels of concern for long-term exposures.
3. Are there indications, e.g., from the meteorological or other data, that the sample set may not be indicative of longer-term air concentrations? Would we expect higher (or lower) concentrations at other times of year?
  - The data we have collected appear to reflect air concentrations during the entire monitoring period, with no indications from the on-site meteorological data that the sampling day conditions were inconsistent with conditions overall during this period.
  - Among the data collected for this site, we have none that would indicate generally higher (or lower) concentrations during other times of year. The wind flow pattern at the nearest NWS station during the sampling period appears to be representative of long-term wind flow patterns at that site. The lack of long-term meteorological data at the school location and our finding that the wind patterns from the nearest NWS station are only somewhat similar to those at the school, however, limit our ability to confidently predict longer-term wind patterns at the school (which might provide further evidence relevant to concentrations during other times).

### **B. Next Steps for Key Pollutants**

1. Based on the analysis described here, EPA will not extend air toxics monitoring at this school.

2. IEPA (as the agency with primary permitting authority) will continue their oversight of conditions imposed by operating permits for nearby facilities to ensure the conditions are being met.

## **VII. Figures and Tables**

### **A. Tables**

1. Saint Josaphat School – Key Pollutant Analysis.
2. Saint Josaphat School Key Pollutant Concentrations and Meteorological Data.

### **B. Figures**

- 1a. Saint Josaphat School – Key Pollutant (Manganese (PM<sub>10</sub>)) Analysis.
- 1b. Saint Josaphat School – Key Pollutant (Lead (TSP)) Analysis.
- 1c. Saint Josaphat School – Key Pollutant (Hexavalent Chromium) Analysis.
- 2a. Saint Josaphat School (Chicago, IL) Manganese (PM<sub>10</sub>) Concentration and Wind Information.
- 2b. Saint Josaphat School (Chicago, IL) Lead (TSP) Concentration and Wind Information.
- 2c. Saint Josaphat School (Chicago, IL) Hexavalent Chromium Concentration and Wind Information.

## **VIII. Appendices**

- A. Summary Description of Long-term Comparison Levels.
- B. National Air Toxics Trends Stations Measurements (2004-2008).
- C. Analysis of Other (non-key) Air Toxics Monitored at the School and Multiple-pollutant Considerations.
- D. Saint Josaphat School Pollutant Concentrations.
- E. Windroses for Chicago-Midway International Airport NWS Station.

Table 1. St. Josaphat School - Key Pollutant Analysis.

Parameter	Units	Mean of Measurements	95% Confidence Interval on the Mean	Long-term Comparison Level <sup>g</sup>	
				Cancer-Based <sup>b</sup>	Noncancer-Based <sup>c</sup>
Manganese (PM <sub>10</sub> )	ng/m <sup>3</sup>	6.73 <sup>d</sup>	2.44 - 11.0	NA	50
Lead (TSP)	ng/m <sup>3</sup>	7.57 <sup>e</sup>	4.78 - 10.4	NA	150 <sup>f</sup>
Hexavalent Chromium	ng/m <sup>3</sup>	0.024 <sup>g</sup>	0.005 - 0.044	8.3 <sup>h</sup>	100

ng/m<sup>3</sup> nanograms per cubic meter

NA Not applicable

<sup>a</sup> Details regarding these values are in the technical report, Schools Air Toxics Monitoring Activity (2009) Uses of Health Effects Information.

<sup>b</sup> An toxics for which the upper 95% confidence limit on the mean concentration is above this level will be fully discussed in the text and may be considered a priority for potential follow-up activities, if indicated in light of the full set of information available for the site. Findings of the upper 95% confidence limit below 1% of the comparison level (i.e., where the upper 95% confidence limit is below the corresponding 1-in-1-million cancer risk based concentration) are generally considered a low priority for follow-up activity. Situations where the summary statistics for a pollutant are below this comparison level but above 1% of this level are fully discussed in the text of the report.

<sup>c</sup> An toxics for which the upper 95% confidence limit on the mean concentration are near or below the noncancer-based comparison level are generally of low concern and will generally be considered a low priority for follow-up activity. Pollutants for which the 95% confidence limits extend appreciably above the noncancer-based comparison level are fully discussed in the school-specific report and may be considered a priority for follow-up activity, if indicated in light of the full set of information available for the site.

<sup>d</sup> The mean of measurements for manganese (PM<sub>10</sub>) is the average of all sample results, which include ten detections that ranged from 1.88 to 21.6 ng/m<sup>3</sup>.

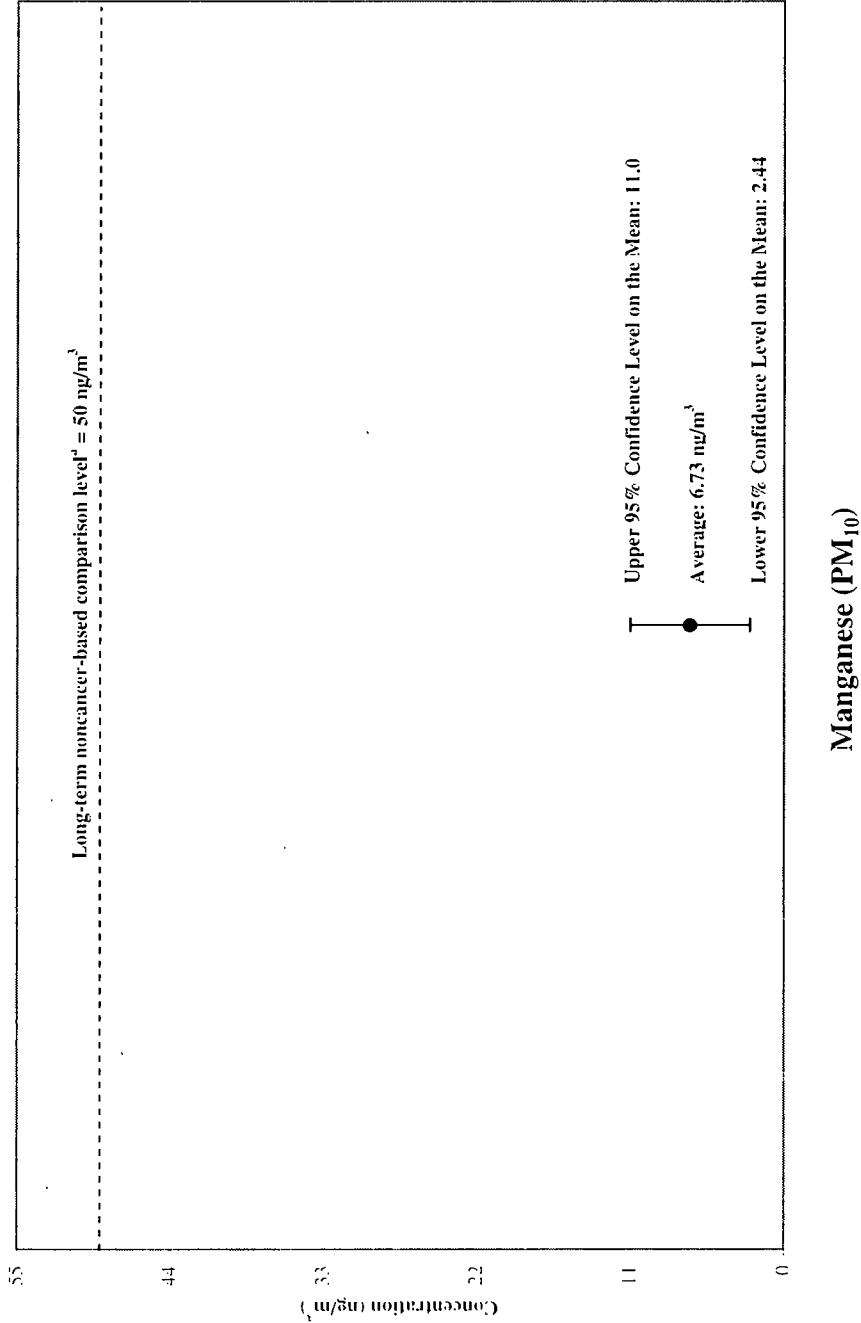
<sup>e</sup> The mean of measurements for lead (TSP) is the average of all sample results, which include twelve detections that ranged from 1.91 to 15.4 ng/m<sup>3</sup>.

<sup>f</sup> This comparison value for lead is the level of the national ambient air quality standard, which is in terms of a 3-month average level of lead in total suspended particles.

<sup>g</sup> The mean of measurements for hexavalent chromium is the average of all sample results, which include eleven detections that ranged from 0.0114 to 0.0995 ng/m<sup>3</sup>. There were, as well, three samples in which no chemical was registered by the laboratory analytical equipment. For these samples, a value of zero was used when calculating the mean.

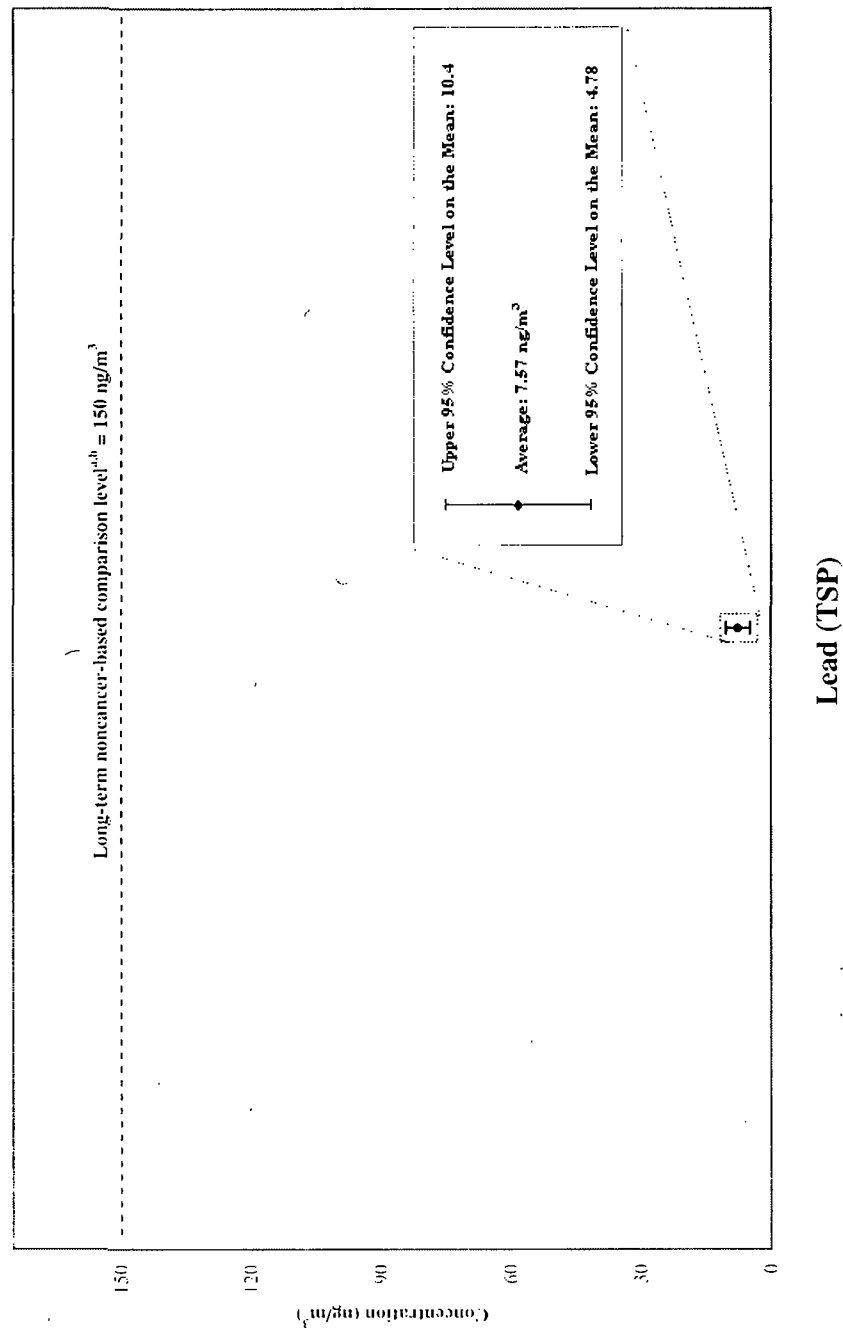
<sup>h</sup> This comparison value is based on the EPA IRIS cancer assessment. It is noted that the EPA is currently updating this assessment with regard to the mode of action. If the update were to conclude that this chemical is carcinogenic by a mutagenic mode of action, this comparison level would be revised to a slightly lower value of 5.2 ng/m<sup>3</sup>, consistent with EPA's Supplemental Guidance for Assessing Susceptibility from Early-Life exposure.

Figure 1a. St. Josaphat School - Key Pollutant (Manganese (PM<sub>10</sub>)) Analysis.



<sup>a</sup> Air toxics for which the upper 95% confidence limit on the mean concentration are near or below the noncancer-based comparison level are generally of low concern and will generally be considered a low priority for follow-up activity. Pollutants for which the 95% confidence limits extend appreciably above the noncancer-based comparison level are fully discussed in the school-specific report and may be considered a priority for follow-up activity, if indicated in light of the full set of information available for the site.

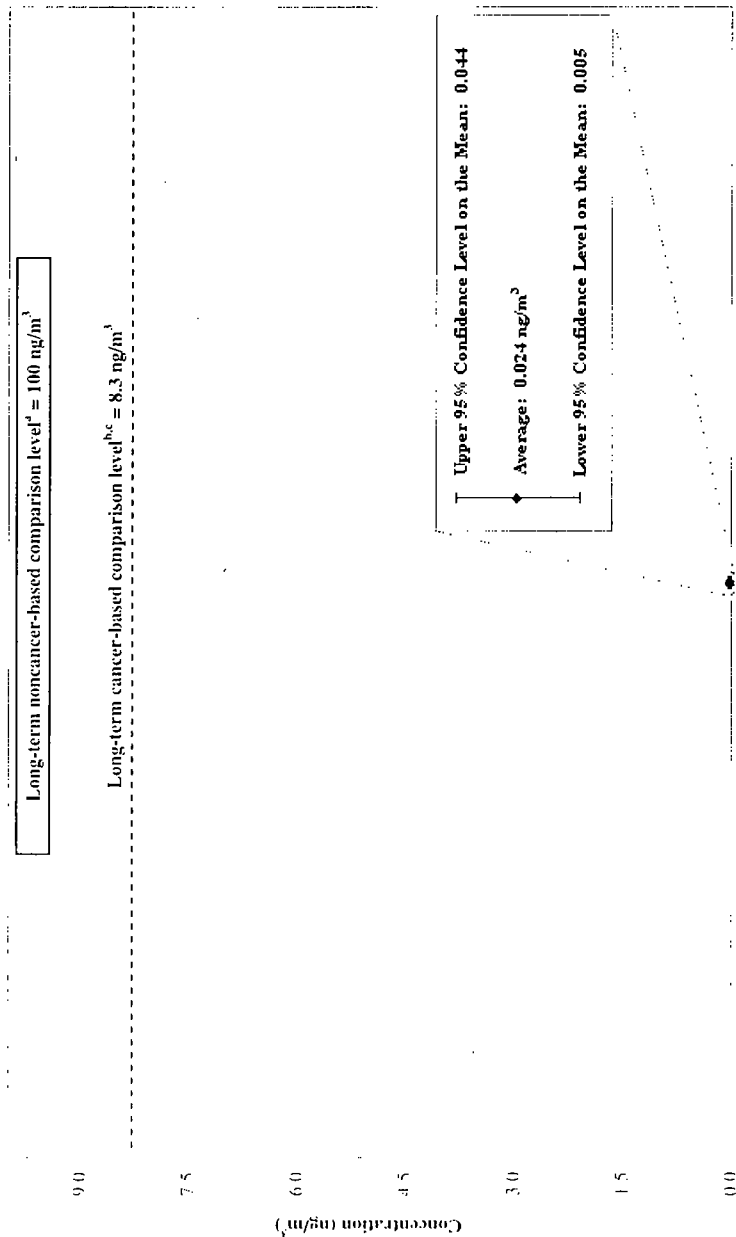
Figure 1b. St. Josaphat - Key Pollutant (Lead (TSP)) Analysis.



<sup>a</sup> Air toxics for which the upper 95% confidence limit on the mean concentration are near or below the noncancer-based comparison level are generally of low concern and will generally be considered a low priority for follow-up activity. Pollutants for which the 95% confidence limits extend appreciably above the noncancer-based comparison level are fully discussed in the school-specific report and may be considered a priority for follow-up activity, if indicated in light of the full set of information available for the site.

<sup>b</sup> This comparison value for lead is the level of the national ambient air quality standard, which is in terms of a rolling 3-month average level of lead in total suspended particles.

Figure 1c. St. Josaphat - Key Pollutant (Hexavalent Chromium) Analysis.



Hexavalent Chromium

<sup>1</sup> Air toxics for which the upper 95% confidence limit on the mean concentration are near or below the noncancer-based comparison level are generally of low concern and will generally be considered a low priority for follow-up activity. Pollutants for which the 95% confidence limits extend appreciably above the noncancer-based comparison level are fully discussed in the school-specific report and may be considered a priority for follow-up activity, if indicated in light of the full set of information available for the site.

<sup>2</sup> Air toxics for which the upper 95% confidence limit on the mean concentration is above this cancer-based comparison level will be fully discussed in the text and may be considered a priority for potential follow-up activities, if indicated in light of the full set of information available for the site. Findings of the upper 95% confidence limit below 1% of the comparison level (i.e., where the upper 95% confidence limit is below the corresponding 1-in-1-million cancer risk based concentration) are generally considered a low priority for follow-up activity. Situations where the summary statistics for a pollutant are below this comparison level but above 1% of this level are fully discussed in the text of the report.

<sup>3</sup> This comparison value is based on the EPA IRIS cancer assessment. It is noted that the EPA is currently updating this assessment with regard to the mode of action. If the update were to conclude that this chemical is carcinogenic by a mutagenic mode of action, this comparison level would be revised to a slightly lower value of 5.2 ng/m³, consistent with EPA's Supplemental Guidance for Assessing Susceptibility from Early-Life exposure.

Table 2. St. Josaphat School Key Pollutant Concentrations and Meteorological Data.

Parameter	Units	8/17/2009	8/23/2009	8/29/2009	9/4/2009	9/10/2009	9/16/2009	9/22/2009	9/28/2009	10/4/2009	10/10/2009	10/16/2009	10/22/2009
Manganese (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	3.17	7.07	6.69	5.44	21.6	12.2	2.15	4.71	1.88	2.38
Lead (TSP)	ng/m <sup>3</sup>	11.6	7.53	3.56	6.13	10.0	5.95	14.4	7.54	3.61	15.4	1.91	3.25
Hexavalent Chromium	ng/m <sup>3</sup>	0.0265	--	ND	0.0515	ND	0.0175	0.0995	0.0258	0.0168	0.0114	ND	0.0184
% Hours w/Wind Direction from Expected ZOI <sup>a</sup>	%	33.3	16.7	0.0	0.00	0.0	0.0	16.7	0.0	0.0	0.0	0.0	20.8
Wind Speed (avg. of hourly speeds)	mph	3.0	3.4	5.8	2.4	3.1	5.2	3.9	9.9	4.9	6.2	4.2	8.9
Wind Direction (avg. of unitized vector) <sup>b</sup>	deg.	227.1	9.2	298.2	17.7	62.5	66.1	159.3	278.9	283.3	287.8	3.1	61.9
% of Hours with Speed below 2 knots	%	25.0	20.8	0.0	50.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average Temperature	° F	75.5	65.2	62.0	67.3	72.3	66.9	69.5	56.0	52.0	39.6	42.1	52.6
Daily Precipitation	inches	0.60	0.00	0.02	0.00	0.00	0.00	0.05	0.02	0.00	0.00	0.13	0.87

All precipitation and temperature data were from the Chicago-Midway International Airport NWS Station.

ND No detection of this chemical was registered by the laboratory analytical equipment.

<sup>a</sup> Based on count of hours for which vector wind direction is from expected zone of influence.

<sup>b</sup> Wind direction for each day is represented by values derived by scalar averaging of hourly estimates that were produced (by wind instrumentation's logger) as unitized vectors (specified as degrees from due north).

-- No sample was taken for this pollutant on this day, or the sample was invalidated.



Figure 2a. St. Josaphat School (Chicago, IL) Manganese ( $PM_{10}$ ) Concentration and Wind Information.

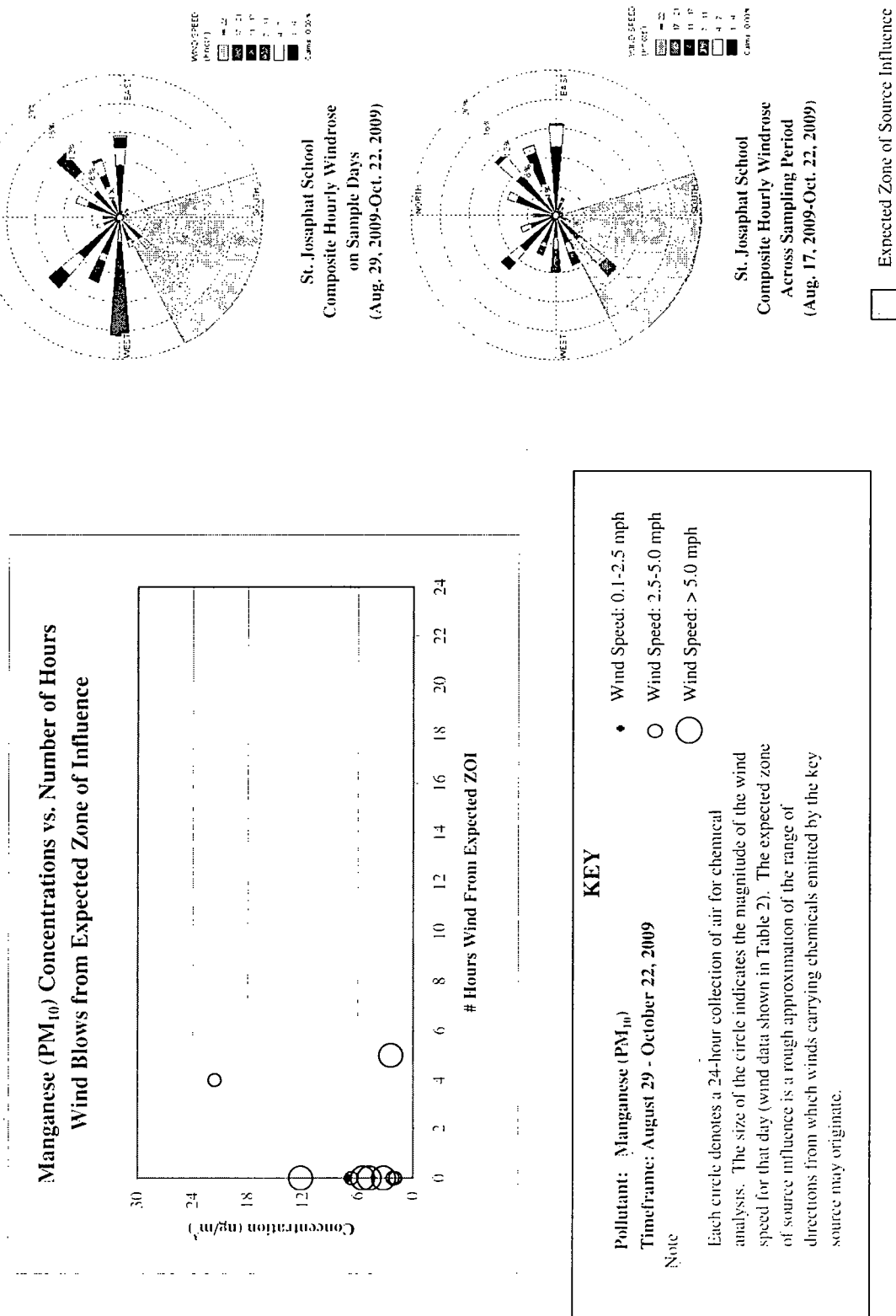
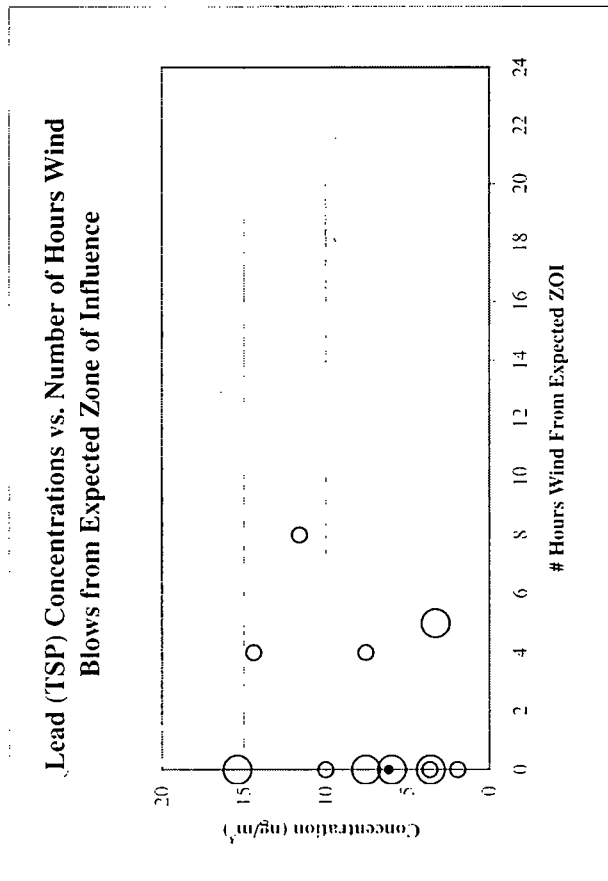


Figure 2b. St. Josaphat School (Chicago, IL) Lead (TSP) Concentration and Wind Information.



**Pollutant:** Lead (TSP)  
**Timeframe:** August 17 - October 22, 2009

**KEY**

- Wind Speed: 0.1-2.5 mph
- Wind Speed: 2.5-5.0 mph
- Wind Speed: > 5.0 mph

**Note**  
 Each circle denotes a 24-hour collection of air for chemical analysis. The size of the circle indicates the magnitude of the wind speed for that day (wind data shown in Table 2). The expected zone of source influence is a rough approximation of the range of directions from which winds carrying chemicals emitted by the key source may originate.

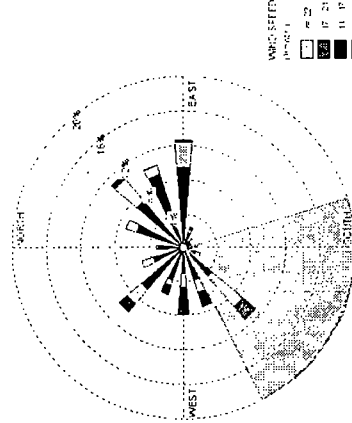
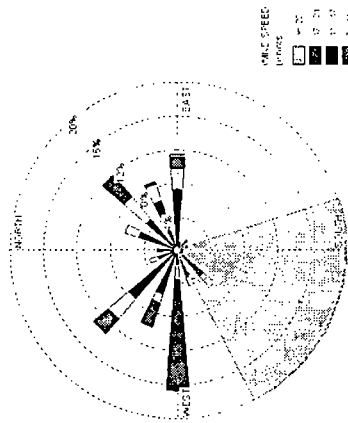
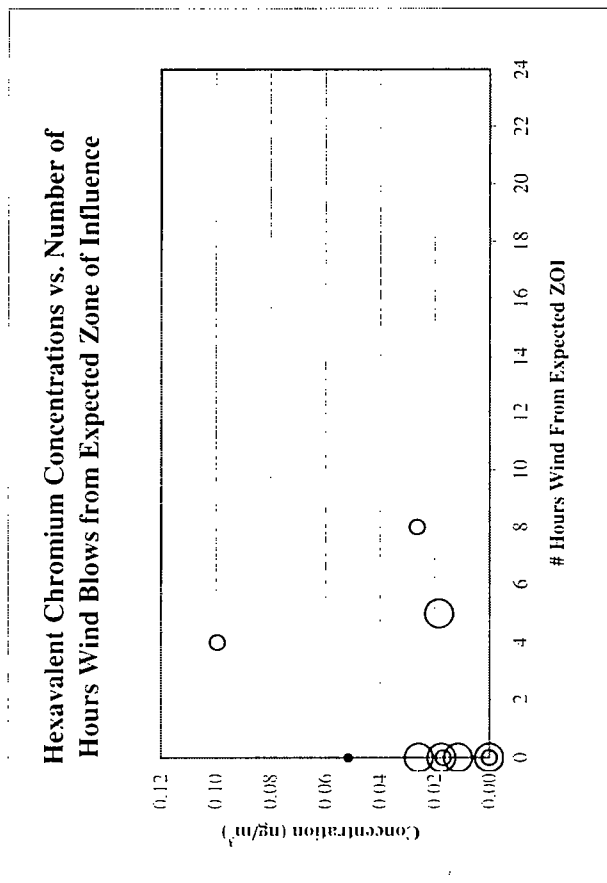


Figure 2c. St. Josaphat School (Chicago, IL) Hexavalent Chromium Concentration and Wind Information.



**Pollutant:** Hexavalent Chromium

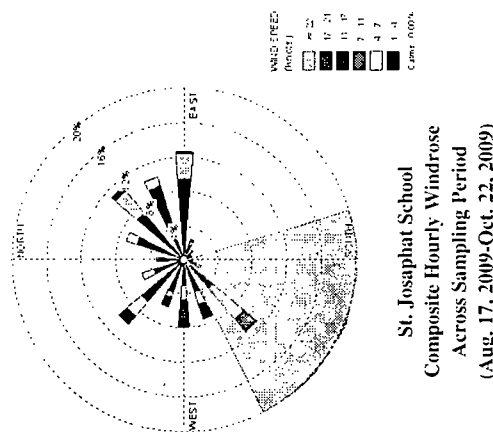
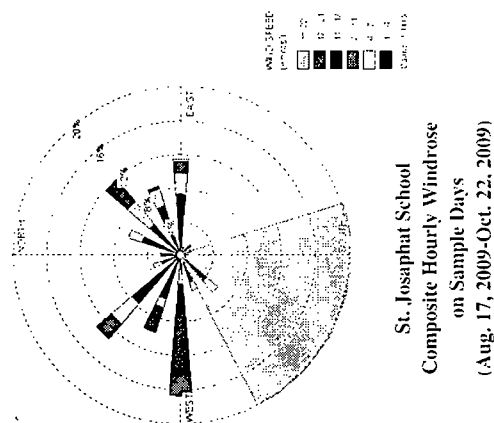
**Timeframe:** August 17 - October 22, 2009

Note

Each circle denotes a 24-hour collection of air for chemical analysis. The size of the circle indicates the magnitude of the wind speed for that day (wind data shown in Table 2). The expected zone of source influence is a rough approximation of the range of directions from which winds carrying chemicals emitted by the key source may originate.

**KEY**

- Wind Speed: 0.1-2.5 mph
- Wind Speed: 2.5-5.0 mph
- Wind Speed: > 5.0 mph



Expected Zone of Source Influence

## Appendix A. Summary Description of Long-term Comparison Levels

In addressing the primary objective identified above, to investigate through the monitoring data collected for key pollutants at the school whether levels are of a magnitude, in light of health risk-based criteria, to indicate that follow-up activities be considered, we developed two types of long-term health risk-related comparison levels. These two types of levels are summarized below.<sup>21</sup>

### Cancer-based Comparison Levels

- For air toxics where applicable, we developed cancer risk-based comparison levels to help us consider whether the monitoring data collected at the school indicate the potential for concentrations to pose incremental cancer risk above the range that EPA generally considers acceptable in regulatory decision-making to someone exposed to those concentrations continuously (24 hours a day, 7 days a week) over an entire lifetime.<sup>22</sup> This general range is from 1 to 100 in a million.
- Air toxics with long-term mean concentrations below one one-hundredth of this comparison level would be below a comparably developed level for 1-in-a-million risk (which is the lower bound of EPA's traditional acceptable risk range). Such pollutants, with long-term mean concentrations below the Agency's traditional acceptable risk range, are generally considered to pose negligible risk.
- Air toxics with long-term mean concentrations above the acceptable risk range would generally be a priority for follow-up activities. In this evaluation, we compare the upper 95% confidence limit on the mean concentration to the comparison level. Pollutants for which this upper limit falls above the comparison level are fully discussed in the school monitoring report and may be considered a priority for potential follow-up activities in light of the full set of information available for that site.
- Situations where the summary statistics for a pollutant are below the cancer-based comparison level but above 1% of that level are fully discussed in Appendix C.

<sup>21</sup> The comparison levels are described in more detail *Schools Air Toxics Monitoring Activity (2009). Uses of Health Effects Information in Evaluating Sample Results*.

<sup>22</sup> While no one would be exposed at a school for 24 hours a day, every day for an entire lifetime, we chose this worst-case exposure period as a simplification for the basis of the comparison level in recognition of other uncertainties in the analysis. Use of continuous lifetime exposure yields a lower, more conservative, comparison level than would use of a characterization more specific to the school population (e.g., 5 days a week, 8-10 hours a day for a limited number of years).

### Noncancer-based Comparison Levels

- To consider concentrations of air toxics other than lead (for which we have a national ambient air quality standard) with regard to potential for health effects other than cancer, we derived noncancer-based comparison levels using EPA chronic reference concentrations (or similar values). A chronic reference concentration (RfC) is an estimate of a long-term continuous exposure concentration (24 hours a day, every day) without appreciable risk of adverse effect over a lifetime.<sup>23</sup> This differs from the cancer risk-based comparison level in that it represents a concentration without appreciable risk vs a risk-based concentration.
- In using this comparison level in this initiative, the upper end of the 95% confidence limit on the mean is compared to the comparison level. Air toxics for which this upper confidence limit is near or below the noncancer-based comparison level (i.e., those for which longer-term average concentration estimates are below a long-term health-related reference concentration) are generally of low concern and will generally be considered a low priority for follow-up activity. Pollutants for which the 95% confidence limits extend appreciably above the noncancer-based comparison level are fully discussed below and may be considered a priority for follow-up activity if indicated in light of the full set of information available for the pollutant and the site.
- For lead, we set the noncancer-based comparison level equal to the level of the recently revised national ambient air quality standard (NAAQS). It is important to note that the NAAQS for lead is a 3-month rolling average of lead in total suspended particles. Mean levels for the monitoring data collected in this initiative that indicate the potential for a 3-month average above the level of the standard will be considered a priority for consideration of follow-up actions such as siting of a NAAQS monitor in the area.

In developing or identifying these comparison levels, we have given priority to use of relevant and appropriate air standards and EPA risk assessment guidance and precedents. These levels are based upon health effects information, exposure concentrations and risk estimates developed and assessed by EPA, the U.S. Agency for Toxic Substances and Disease Registry, and the California EPA. These agencies recognize the need to account for potential differences in sensitivity or susceptibility of different groups (e.g., asthmatics) or lifestages/ages (e.g., young children or the elderly) to a particular pollutant's effects so that the resulting comparison levels are relevant for these potentially sensitive groups as well as the broader population.

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<sup>23</sup> EPA defines the RfC as "an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from a NOAEL, LOAEL, or benchmark concentration, with uncertainty factors generally applied to reflect limitations of the data used. Generally used in EPA's noncancer health assessments." [http://www.epa.gov/ncea/iris/help\\_gloss.htm#r](http://www.epa.gov/ncea/iris/help_gloss.htm#r)

**Appendix B. National Air Toxics Trends Stations Measurements (2004-2008).<sup>a</sup>**

Pollutant	Units	# Samples Analyzed	% Detections	Maximum	Arithmetic Mean <sup>b</sup>	Geometric Mean	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
Hexavalent Chromium	ng/m <sup>3</sup>	4,233	66%	2.97	0.03	0.03	ND	ND	0.01	0.04	0.13
Antimony (PM <sub>10</sub> )	ng/m <sup>3</sup>	2,372	94%	43.30	1.71	1.21	ND	0.60	1.13	2.17	4.33
Arsenic (PM <sub>10</sub> )	ng/m <sup>3</sup>	5,076	86%	47.70	0.93	0.70	ND	0.29	0.56	1.02	2.89
Beryllium (PM <sub>10</sub> )	ng/m <sup>3</sup>	4,771	64%	1.97	0.05	0.02	ND	ND	<0.01	0.02	0.50
Cadmium (PM <sub>10</sub> )	ng/m <sup>3</sup>	4,793	85%	15.30	0.27	0.17	ND	0.05	0.13	0.29	0.94
Cobalt (PM <sub>10</sub> )	ng/m <sup>3</sup>	2,614	91%	20.30	0.28	0.18	ND	0.08	0.15	0.27	1.00
Manganese (PM <sub>10</sub> )	ng/m <sup>3</sup>	4,793	99%	734.00	10.39	5.20	<0.01	2.41	4.49	9.96	33.78
Mercury (PM <sub>10</sub> )	ng/m <sup>3</sup>	1,167	81%	2.07	0.07	0.04	ND	0.01	0.02	0.06	0.32
Nickel (PM <sub>10</sub> )	ng/m <sup>3</sup>	4,815	90%	110.10	2.05	1.49	ND	0.74	1.44	2.50	5.74
Selenium (PM <sub>10</sub> )	ng/m <sup>3</sup>	2,382	96%	13.00	1.10	0.53	<0.01	0.24	0.53	1.07	5.50

Key Pollutant

ND No results of this chemical were registered by the laboratory analytical equipment.

<sup>a</sup> The summary statistics in this table represent the range of actual daily HAP measurement values taken at NATTS sites from 2004 through 2008. These data were extracted from AQS in summer 2008 and 2009. During the time period of interest, there were 28 sites measuring VOCs, carbonyls, metals, and hexavalent chromium. We note that some sites did not sample for particular pollutant types during the initial year of the NATTS Program, which was 2004. Most of the monitoring stations in the NATTS network are located such that they are not expected to be impacted by single industrial sources. The concentrations typically measured at NATTS sites can thus provide a comparison point useful to considering whether concentrations measured at a school are likely to have been influenced by a significant nearby industrial source, or are more likely to be attributable to emissions from many small sources or to transported pollution from another area. For example, concentrations at a school above the 75th percentile may suggest that a nearby industrial source is affecting air quality at the school.

<sup>b</sup> In calculations involving non-detects (ND), a value of zero is used.

## **Appendix C. Analysis of Other (non-key) Air Toxics Monitored at the School and Multiple-pollutant Considerations.**

At each school, monitoring has been targeted to get information on a limited set of key hazardous air pollutants (HAPs).<sup>24</sup> These pollutants are the primary focus of the monitoring activities at a school and a priority for us based on our emissions, modeling and other information. In analyzing air samples for these key pollutants, we have also obtained results for some other pollutants that are routinely included with the same test method. Our consideration of the data collected for these additional HAPs is described in the first section below. In addition to evaluating monitoring results for individual pollutants, we also considered the potential for cumulative impacts from multiple pollutants as described in the second section below (See Table C-1).

### **Other Air Toxics (HAPs)**

- Do the monitoring data indicate elevated levels of any other air toxics or hazardous air pollutant (HAPs) that pose significant long-term health concerns?
  - No. Longer-term concentration estimates for the other HAPs monitored are below their long-term comparison levels.
  - Further, for pollutants with cancer-based comparison levels, longer-term concentration estimates for all are more than tenfold lower and all but one (arsenic) is more than 100-fold lower.<sup>25</sup>
  - Additionally, each individual measurement for these pollutants is below the individual sample screening level developed for considering potential short-term exposures for that pollutant.<sup>26</sup>

### **Additional Information on One HAP**

- The mean and 95 percent upper bound on the mean for the HAP mentioned above (arsenic) are approximately 2-4% of the cancer-based comparison level. Additionally, a review of information available at other sites nationally shows that the mean concentration of arsenic (PM<sub>10</sub>) at this site falls below both the mean and median of samples collected from 2004 to 2008 (the most recently compiled period) at the NATTS (Appendix B).

<sup>24</sup> Section 112(b) of the Clean Air Act identifies 189 hazardous air pollutants, three of which have subsequently been removed from this list. These pollutants are the focus of regulatory actions involving stationary sources described by CAA section 112 and are distinguished from the six pollutants for which criteria and national ambient air quality standards (NAAQS) are developed as described in section 108. One of the criteria pollutants, lead, is also represented, as lead compounds, on the HAP list.

<sup>25</sup> For pollutants with cancer-based comparison levels, this would indicate longer-term estimates below continuous (24 hours a day, 7 days a week) lifetime exposure concentrations associated with 10<sup>-5</sup> and 10<sup>-6</sup> excess cancer risk, respectively.

<sup>26</sup> The comparison levels and their use is summarized on the website and described in detail in *Schools Air Toxics Monitoring Activity (2009), Uses of Health Effects Information in Evaluating Sample Results*.

### **Multiple Pollutants**

As described in the main body of the report and background materials, this initiative and the associated analyses are focused on investigation of key pollutants for each school that were identified by previous analyses. This focused design does not provide for the consideration of combined impacts of pollutants or stressors other than those monitored in this project. Broader analyses and those involving other pollutants may be the focus of other EPA activities.<sup>27</sup>

In our consideration of the potential for impacts from key pollutants at the monitored schools, we have also considered the potential for other monitored pollutants to be present at levels that in combination with the key pollutant levels contribute to an increased potential for cumulative impacts. This was done in cases where estimates of longer-term concentrations for any non-key HAPs are within an order of magnitude of their comparison levels even if these pollutant levels fall below the comparison levels. This analysis is summarized below.

- Do the data collected for the air toxics monitored indicate the potential for other monitored pollutants to be present at levels that in combination with the key pollutant levels indicate an increased potential for cumulative impacts of significant concern (e.g., that might warrant further investigation)?
  - The data collected for the key and other air toxics and the associated longer-term concentration estimates do not together pose significant concerns for cumulative health risk from these pollutants.
    - Only one HAP monitored (manganese) has a longer-term concentration estimate more than ten percent of its lowest comparison level.

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<sup>27</sup> General information on additional air pollutants is available at <http://www.epa.gov/air/airpollutants.html>.



Table C-1. St. Josaphat School - Other Monitored Pollutant Analysis.

Parameter	Units	Mean of Measurements <sup>a</sup>	95% Confidence Interval on the Mean	Long-term Comparison Level <sup>b</sup>	
				Cancer-Based <sup>c</sup>	Noncancer-Based <sup>d</sup>
Non-Key HAPs with mean lower than 10% of the lowest comparison level					
Arsenic (PM <sub>10</sub> )	ng/m <sup>3</sup>	0.53	0.22 - 0.84	23	15
Cadmium (PM <sub>10</sub> )	ng/m <sup>3</sup>	0.10	0.04 - 0.16	56	10
Antimony (PM <sub>10</sub> )	ng/m <sup>3</sup>	1.63	1.07 - 2.19	NA	200
Nickel (PM <sub>10</sub> )	ng/m <sup>3</sup>	0.70	0.30 - 1.10	420	90
Cobalt (PM <sub>10</sub> )	ng/m <sup>3</sup>	0.07	0 - 0.12	NA	100
Selenium (PM <sub>10</sub> )	ng/m <sup>3</sup>	0.65	0.25 - 1.05	NA	20,000
Non-Key HAPs with more than 50% ND results.					
Beryllium (PM <sub>10</sub> )	ng/m <sup>3</sup>	60% of results were ND <sup>e</sup>	ND <sup>e</sup>	42	20
Mercury (PM <sub>10</sub> )	ng/m <sup>3</sup>	60% of results were ND <sup>f</sup>	ND <sup>f</sup>	NA	300 <sup>g</sup>

ng/m<sup>3</sup> nanograms per cubic meter

NA Not applicable

ND No detection of this chemical was registered by the laboratory analytical equipment.

<sup>a</sup> Mean of measurements is the average of all sample results which include actual measured values. If no chemical was registered, then the value is assumed to be zero when calculating the mean.

<sup>b</sup> Details regarding these values are in the technical report, Schools Air Toxics Monitoring Activity (2009) Uses of Health Effects Information

<sup>c</sup> Air toxics for which the upper 95% confidence limit on the mean concentration is above this level will be fully discussed in the text and may be considered a priority for potential follow-up activities, if indicated in light of the full set of information available for the site. Findings of the upper 95% confidence limit below 1% of the comparison level (i.e., where the upper 95% confidence limit is below the corresponding 1-in-1-million cancer risk based concentration) are generally considered a low priority for follow-up activity. Situations where the summary statistics for a pollutant are below this comparison level but above 1% of this level are fully discussed in the text of the report.

<sup>d</sup> Air toxics for which the upper 95% confidence limit on the mean concentration are near or below the noncancer-based comparison level are generally of low concern and will generally be considered a low priority for follow-up activity. Pollutants for which the 95% confidence limits extend appreciably above the noncancer-based comparison level are fully discussed in the school-specific report and may be considered a priority for follow-up activity, if indicated in light of the full set of information available for the site.

<sup>e</sup> Beryllium (PM<sub>10</sub>) was detected in only 4 of 10 samples, ranging from 0.001 to 0.07 ng/m<sup>3</sup>. The MDL is 0.03 ng/m<sup>3</sup>.

<sup>f</sup> Mercury (PM<sub>10</sub>) was detected in only 4 of 10 samples, ranging from 0.02 to 0.11 ng/m<sup>3</sup>. The MDL is 1.12 ng/m<sup>3</sup>.

<sup>g</sup> The comparison level is specific to elemental mercury, which is more readily and completely absorbed into the body than mercury conveyed on particles (e.g., divalent species).

# Appendix D. St. Josaphat School Pollutant Concentrations.

Parameter	Units	8/17/2009	8/23/2009	8/29/2009	9/4/2009	9/10/2009	9/16/2009	9/22/2009	9/28/2009	10/4/2009	10/10/2009	10/16/2009	10/22/2009	Sample Screening Level <sup>a</sup>
Manganese (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	3.17	7.07	6.69	5.44	21.6	12.2	2.15	4.71	1.88	2.38	500
Lead (TSP)	ng/m <sup>3</sup>	11.6	7.53	3.56	6.13	10.0	5.95	14.4	7.54	3.61	15.4	1.91	3.25	150
Hexavalent Chromium	ng/m <sup>3</sup>	0.0265	--	ND	0.0515	ND	0.0175	0.0995	0.0258	0.0168	0.0114	ND	0.0184	580
Arsenic (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	0.51	0.72	1.12	ND	1.16	0.16	0.53	0.91	0.17	0.03	150
Cadmium (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	0.04	0.13	0.19	0.06	0.30	0.02	0.04	0.10	0.04	0.07	30
Antimony (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	1.59	1.92	1.44	0.68	3.30	1.25	1.84	2.45	1.02	0.83	2,000
Nickel (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	1.40	0.54	1.16	0.48	1.81	0.48	0.60	0.30	0.04	0.20	200
Cobalt (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	0.06	0.11	0.08	0.07	0.23	0.09	0.02	0.02	0.008	0.04	100
Selenium (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	0.13	0.82	1.48	0.73	1.59	0.51	0.02	0.12	0.17	0.91	20,000
Beryllium (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	0.001	0.06	ND	0.07	ND	ND	ND	ND	ND	0.02	20
Mercury (PM <sub>10</sub> )	ng/m <sup>3</sup>	--	--	ND	0.02	ND	0.08	ND	ND	ND	ND	0.02	0.11	3,000 <sup>b</sup>

## Key Pollutant

ng/m<sup>3</sup> nanograms per cubic meter

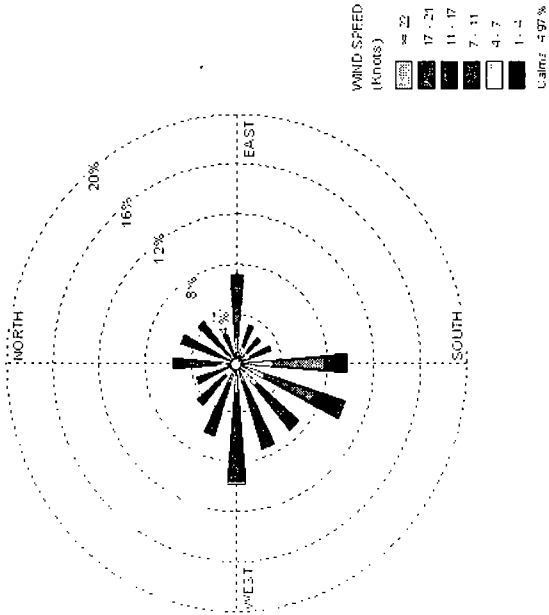
-- No sample was taken for this pollutant on this day, or the sample was invalidated.

ND No detection of this chemical was registered by the laboratory analytical equipment.

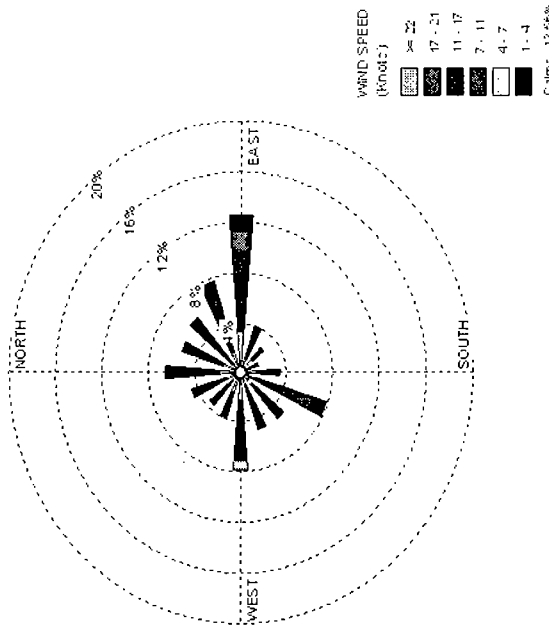
<sup>a</sup> The comparison levels and their use is summarized on the web site and described in detail in Schools Air Toxics Monitoring Activity (2009), "Uses of Health Effects Information in Evaluating Sample Results." These short-term screening levels are based on consideration of exposure all day, every day over a period ranging up to at least a couple of weeks, and longer for some pollutants.

<sup>b</sup> The sample screening level is specific to elemental mercury, which is more readily and completely absorbed into the body than mercury conveyed on particles (e.g., divalent species).

Appendix E. Windroses for Chicago-Midway International Airport NWS Station.



CHICAGO-MIDWAY  
INTERNATIONAL AIRPORT  
NWS Station  
2002-2007



CHICAGO-MIDWAY  
INTERNATIONAL AIRPORT  
NWS Station  
Across Sampling Period  
(Aug. 17-Oct. 22, 2009)¹

¹CHICAGO-MIDWAY INTERNATIONAL AIRPORT NWS Station (WBAN 14819) is 10.37 miles from St. Josaphat School.

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## City shuts down General Iron scrap yard, but owner vows to reopen

MICAH MAIDENBERG



REPRINTS



Patrick Houdek via Flickr

City officials have shuttered a scrap yard in the fast-gentrifying Clybourn Corridor, calling the controversial operation dangerous and unsafe. Yet the owner of the metal facility is

vowing to reopen.

Department of Buildings inspectors issued an order to General Iron Industries yesterday that lists a wide range of code violations at the company's scrap-metal facility along Marcy, Kingsbury and Clifton streets, south of Armitage Avenue. The buildings and fire departments completed a two-day inspection of the property on April 26, according to the city.

The order called the operation "dangerous, hazardous and unsafe" and an "imminent threat to the public at large," a copy of it shows.

Inspectors grouped the violations they found under seven categories, ranging from elevator and electrical violations to problems with the company's metal shredder and fire hazards. An elevator in one of the buildings at the property, for example, had been removed, leaving an open shaft, the document said. Other buildings had structural violations.

General Iron's scrap yard has become an oddity in a part of the North Side that historically has been industrial but has changed rapidly over the past several years—with more change still to come. To the south of the operation, retailers have poured in. Nearby, real estate developer Sterling Bay is purchasing the site of the former **A. Finkl & Sons steel plant** and other land where it plans new commercial developments. The city wants to **change zoning rules** that had been in place to protect manufacturers from encroaching gentrification.

In an emailed statement, Adam Labkon, a member of the family that owns General Iron, said the company is "complying with the city order and working closely with the Buildings Department to address their concerns."

"We are committed to the safety of our more than 100 employees, being responsible neighbors and providing reliable, high-quality service for our clients," Labkon said. "We are doing everything we can to reopen as soon as possible and continue recycling our city's discarded metal, as we have been doing for more than 100 years."

Buildings Department spokeswoman Mimi Simon confirmed General Iron is cooperating with the closure order, and has vacated the operation and posted security guards there.

"The elevator shafts have been secured, and ownership is meeting with the Department of Buildings this afternoon to begin addressing the building code violations," she said in an email today.

Ald. Brian Hopkins, whose 2nd Ward includes the General Iron operation, declined to comment.

In the past, Hopkins has been vocal about his desire to see General Iron close or move away. Multiple fires at the site have angered Lincoln Park residents, including a significant fire in December that sent smoke drifting into residential areas.

Hopkins **told Crain's in February** that he had offered to help General Iron relocate. "(It's) just not compatible with the residential community that's growing and getting closer to them every day," he said then.

The future of the General Iron operation will likely be discussed next week, when the alderman hosts a meeting about potential changes to the manufacturing-zoning designation that covers part of the Clybourn Corridor.

*Crain's reporter Ryan Ori contributed.*

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