



GENERAL IRON UPDATE

Community Town Hall
August 3, 2020





AGENDA

- **Welcome**

- Overview Commitments to Air Quality – Angela Tovar Chief Sustainability Officer, City of Chicago

- **Information Sharing**

- CDPH Air Quality Efforts and Status of Ongoing Enforcement – Commissioner Allison Arwady, CDPH
- Explosion Investigation and Findings – Joseph Jaskulski, Project Performance Group
- Next Steps – Jeffery Levine, Deputy Corporation Counsel, Department of Law

- **Community Conversation**

- Comments / Q&A

- **Closing Remarks**

- Alderman Hopkins
- Alderman Smith
- Alderman Waguespack



TOWN HALL PURPOSE

- To provide updates on the status of General Iron's operations, the findings of the explosion investigation and ongoing enforcement
- To engage with the community on your questions and comments



COMMITMENT TO ENVIRONMENTAL JUSTICE AND AIR QUALITY REFORM

- Mayor Lightfoot’s administration is committed to working with residents to improve quality of life and mitigate air pollution in low-income communities and communities of color disproportionately impacted by pollution.
- Recent air quality initiatives – including the Air Quality and Health Report and large recycler rules - advance community protections. Building on this progress we are now taking further steps to advance environmental justice:
 - Creation of an environmental equity working group to help advise a reform agenda
 - Development of new and revised rules for industrial facilities
 - Development of a zoning ordinance and cumulative burden ordinance requiring new and more stringent permitting requirements
 - Evaluation and updates of environmental permitting and inspection processes

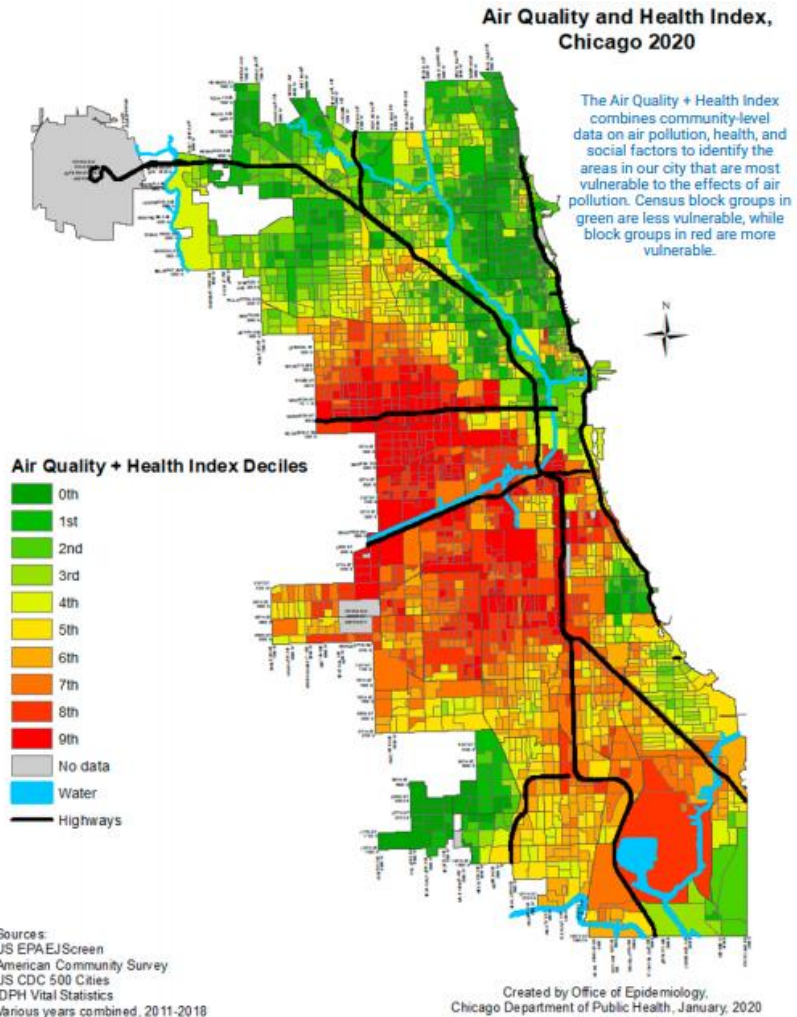


NEW AIR QUALITY AND HEALTH INDEX

CDPH analyzed community-level data on:

- air quality
- health conditions, and
- social factors

...to identify neighborhoods that should be prioritized for efforts to mitigate air pollution.





***NEW* LARGE RECYCLING FACILITY RULES**

COMMUNITY-INFORMED PROCESS

- CDPH issues environmental permits to facilities that operate regulated equipment or engage in certain kinds of business activities.
- Chicago's first-ever rules for large recycling facilities are in effect as of June 2020.
- Engaged stakeholders for input - more than 30 comments were submitted. Various community organizations provided thoughtful feedback to make these rules even stronger.
- **These rules are among the strongest and most comprehensive municipal regulations for metal recyclers in the country.**





WHAT'S IN THE NEW RULES?

- Large recycling facilities will be required to provide:
 - Air impact study and ongoing air monitoring for particulate matter
 - Traffic studies for new facilities
 - Real-time notification of airborne particulate matter and a mitigation plan to prevent public health impacts
 - Noise impact assessment and monitoring
 - Enclosure of post processed auto-fluff and auto shredder equipment at new and expanding facilities
 - More stringent record keeping
 - Public notice and opportunity to comment on permit variances



★ CDPH ENFORCEMENT AT GENERAL IRON

- In the last year, CDPH has inspected General Iron many times, including:
 - Over **50 routine inspections**
 - Over **60 inspections in response to 311 complaints**
- From December 2019 to March 2020, 11 complaint-response inspections resulted in **citations for odors, dust, and off-site fibers**. The citations are pending.
- In response to the citations, General Iron is taking **additional mitigation and corrective actions** beyond what is currently required by its recycling facility permit. They have already put in place:
 - Misters for dust and autofluff suppression
 - Netting to contain autofluff



GII, LLC - Water Misting Cannon Locations





EXPLOSION INCIDENT

- On the morning of May 18, an explosion occurred at the General Iron facility at 1909 N. Clifton.
- The Fire Department (CFD), Department of Buildings (DOB) and CDPH responded:
 - **CFD Hazmat** unit took initial readings for VOCs and other pollutants and found they were within normal range and did not pose a health risk.
 - **DOB** inspected the structures and issued a cease and desist to the facility.
 - **CDPH** issued two citations.

RMG hired an independent consultant, Exponent, to **investigate the cause** of the explosion and **make recommendations** for corrective actions.





EXPLOSION INVESTIGATION & FINDINGS

- Joseph Jaskulski, P.E., Project Performance Group
- Hired by City of Chicago to:
 - **Observe the investigation** by Exponent
 - **Advise the City** on whether the controls now in place will prevent a similar occurrence
- Inspected and observed the site, equipment and prevention controls put in place based on recommendations.





WHAT HAPPENED?

- Fire and explosion started in the regenerative thermal oxidizer (RTO) and flames were also observed near the baghouse.
- The flames quickly self-extinguished; however, the force of explosion damaged the RTO, a fan and the fabric filter.
- Explosion requires ignition, oxidant and fuel.
 - Ignition and oxidant are normally present in the RTO.
 - Two possible sources of fuel were identified:
 - Natural gas in RTO – determined **not possible**
 - Fuel source introduced into shredder – **most likely scenario**



★ MITIGATION: ENGINEERING CONTROLS

A new **combustible gas monitor** installed upstream in the hood of the shredder triggers a valve if combustible gas is present. When triggered, the feeder belt to the shredder automatically stops.



Newly installed **diverter valve** will vent to the outside if the monitor detects combustible gas.



★ MITIGATION: ENGINEERING CONTROLS

If a container of combustible gas gets into the shredder...

- The **combustible gas monitor** detects the presence of combustible gas within one second and triggers the diverter valve.
- The **diverter valve** opens in less than one second, allowing the combustible gas to be safely released.
 - It takes the process stream 13 seconds to travel from the shredder to the RTO
 - The response time is fast enough to ensure the diverter valve opens in time to release the gas.
- This is a highly reliable mechanical control that will prevent explosions in the future.

★ MITIGATION: ADMINISTRATIVE CONTROLS

- New signage
- Reminders to suppliers to separate fuel tanks
 - Written notice to top suppliers
 - Flyers
- Continue paying suppliers for fuel containers to discourage concealment
- Continued visual monitoring of truckloads at scales and inspection while unloading
- Continued visual monitoring of material ascending the shredder feeder belt



New sign at scales



CONCLUSIONS FROM EXPERT REVIEW

- The appropriate controls are in place to prevent a reoccurrence.
- Based on this review, there is no reason to object to the facility resuming shredding-related operations based on the explosion.





NEXT STEPS

- Before General Iron can resume shredding-related activities:
 - **City departments** will do a final site inspection and determine whether all necessary controls are in place.
- The company has made a firm commitment to cease operations at the facility by the end of the year.
- The reports are posted online at https://www.chicago.gov/city/en/depts/cdph/provdrs/health_y_communities/svcs/public-health---community-information.html
- Additional comments or questions can be submitted to cdphpermits@cityofchicago.org.





COMMUNITY CONVERSATION

- What questions/comments do you have about the investigation process, findings, or steps that are being taken to prevent future issues?

