GENERAL IRON UPDATE

Community Town Hall
August 3, 2020
AGENDA

• Welcome
  o Overview Commitments to Air Quality – Angela Tovar, Chief Sustainability Officer, City of Chicago

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

• Community Conversation
  o Comments / Q&A

• Closing Remarks
  o Alderman Hopkins
  o Alderman Smith
  o 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:
  
  o Creation of an environmental equity working group to help advise a reform agenda
  o Development of new and revised rules for industrial facilities
  o Development of a zoning ordinance and cumulative burden ordinance requiring new and more stringent permitting requirements
  o Evaluation and updates of environmental permitting and inspection processes
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.
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
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
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:
  o 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.
  o DOB inspected the structures and issued a cease and desist to the facility.
  o 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:
  o Observe the investigation by Exponent
  o 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
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.
• Before General Iron can resume shredding-related activities:
  o **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.


• Additional comments or questions can be submitted to [cdphpermits@cityofchicago.org](mailto:cdphpermits@cityofchicago.org).
• What questions/comments do you have about the investigation process, findings, or steps that are being taken to prevent future issues?