

Saturday, April 11, 2020 (Day before Easter) during Coronavirus Pandemic

Sunny 65 Degrees, Winds from South

Good day to implode a 96 year old smoke stack



Image captured from: <https://www.youtube.com/watch?v=UzkFYVsNRFE&feature=youtu.be>





Image captured from: <https://chicago.suntimes.com/metro-state/2020/4/11/21217604/little-implosion-dust-cloud-crawford-coal-plant-hilco>



Crawford Power Generating Station

- Former Coal-fired Power Plant;
- Operated 1924 -2012;
- Property in IEPA SRP (Site Remediation Program)
 - Metals, PAH, PCB, others;
- Removal Program Neighborhood Site Assessment in 2012
 - Nothing directly attributable to plant



Crawford Power Generating Station

- Current Owner HILCO developing into 1,000,000+ square foot warehouse space (Target distribution center);
- Demolition and re-development overseen by City of Chicago.
- Original Demo planned for Feb 2020:
 - Plan to wet landing area, allowed to freeze = limit dust;
 - Have Chicago FD on site for fugitive dust suppression;
 - Plan approved by Dept. of Buildings;
 - Asbestos from stack remediated;
- Original demolition contractor let go;
- New contractor assures City it will implement plan.



<https://youtu.be/UzkFYVsNRFE>



Fallout

- Department of Buildings & Public Health
 - On-site, issued stop-work order;
 - CDPH scrambled and grabbed several crude “wipe” samples using paper towels from car windshields in neighborhood and other areas off-site.





April 13, 2020

- CDPH asks for air monitoring support from EPA:
 - DustTraks & Viper;
 - Technical Support where needed.
- Maguire on primary
 - Mendoza facilitated support through existing contacts at CDPH.
- But wait, it's Coronavirus Lockdown....

What do we do???



Coronavirus Response

- Follow recent framework document to respond:
 - Series of questions for EPA responder to answer:
 - Work with Section/Branch Chiefs to answer and get go-ahead
 - Series of questions and questionnaire for contractor to answer/fill out
 - Try to be specific and provide guidance on COVID-19 protocols for contractors to follow in email.
 - May need extra vehicles;
 - May need less on-site personnel;
 - Require personnel that can troubleshoot instruments without guidance:
 - » DustTrak/Viper/Power issues – for example.



Coronavirus Response

- Initial response to scene:
 - Needed access to locations both on and off-site to place instruments, face to face necessary:
 - Wear PPE
 - Masks
 - Gloves
 - Likely inevitable initially, but plan to limit face to face interactions after first connection
 - » Asked and received keys/codes for access
 - » Establish protocols for on and off-site security



Coronavirus Response

- Considerations:
 - Food
 - Takeout/Drive thru open mostly (location specific);
 - Bring from home if possible.
 - Technology
 - Viper – issues with power, made adjustments (generators)
 - Laptop, phone, mifi.
 - We know the drill, but some good newer options:
 - » MS Skype, Teams, OneDrive
 - Dashboard – link through response.epa.gov



Coronavirus Response

- Considerations:
 - Other facilities
 - Don't assume you'll be able to find restrooms or places to wash hands easily, contractors too...
 - Willowbrook Warehouse is 15 minutes from site:
 - Assumed I could use it no problem...
 - Process involved Branch Chief's clearance through regional management.
 - » Access is easy for equipment pickup drop off;
 - » Not necessarily for other reasons.





Back to Crawford...

- CDPH collected soil samples near fall zone:
 - Lead (3500 ppm) and arsenic (170 ppm) well above Removal Management Levels;
 - Low level PCBs <1 ppm;
 - Low level PAHs;
 - Chrysotile asbestos found in 1 sample at 1-2%.
- CDPH amended request to add air sampling at the perimeter;
 - Through 4/23/2020
 - No asbestos fibers above OSHA PEL of 0.1 fibers/cc;
 - All metals either not detected above reporting limit or below Regional Screening Levels;
 - PCB results still pending.



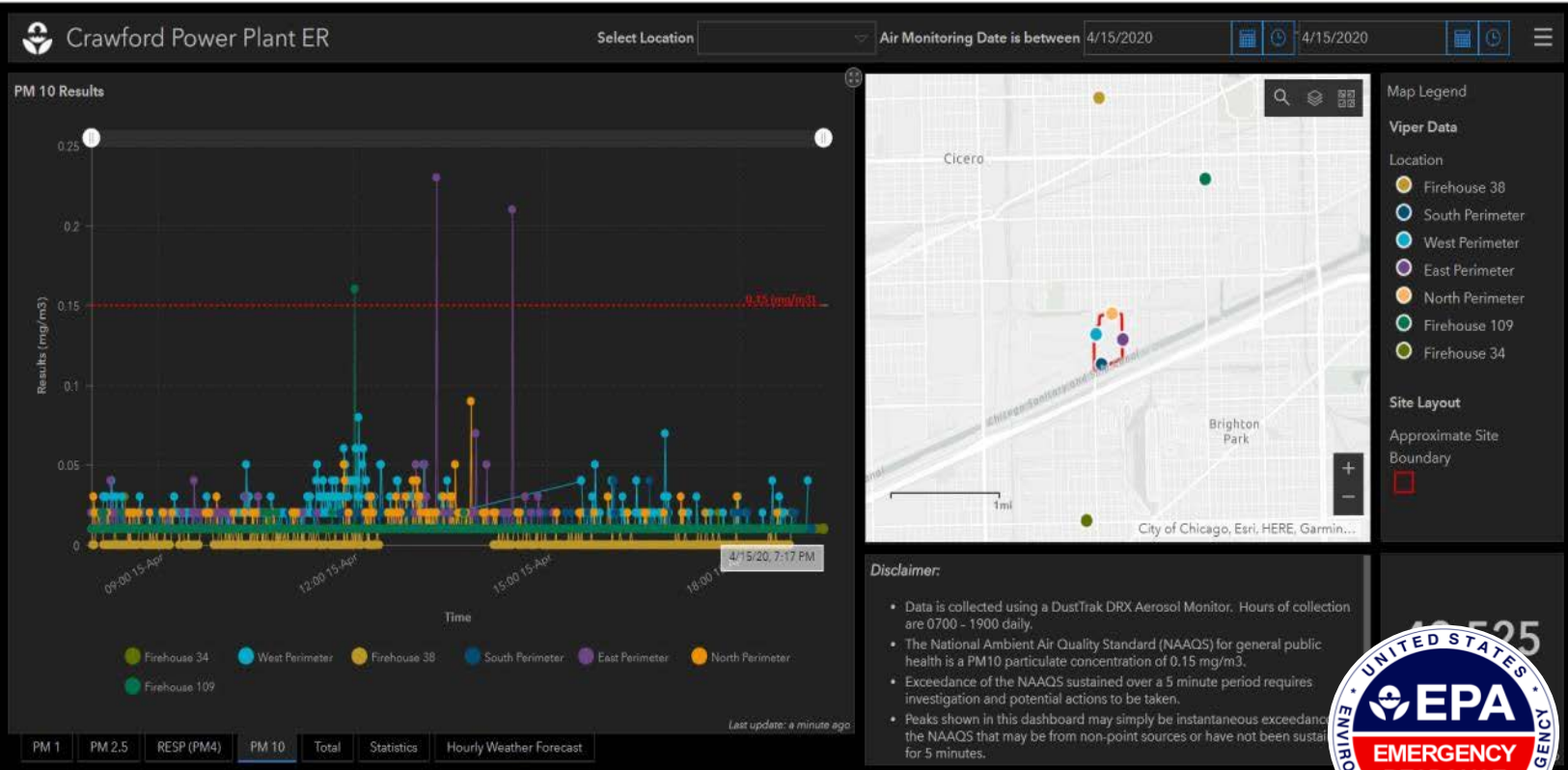
Back to Crawford...




- Particulate Monitoring
 - Action level set at the National Ambient Air Quality Standard for general public health of 150 ug/m³ (0.150 mg/m³).
 - Actionable result if exceedance sustained for 5 minutes;
 - To date no site-related sustained exceedances.
- Continued support
 - CDPH has received bids to take over monitoring and sampling:
 - Hope to transition soon.
- HILCO has resumed demolition clearing operations
 - Demolition of remaining buildings may begin May 1st



Data Dashboard



VIPER


Welcome maguire.andrew@epa.gov [[Log Out](#)]

VIPER: DEPLOYMENT MANAGER

Deployments (1)
Help

[R05 Crawford Power Plant Demo Deployment](#)

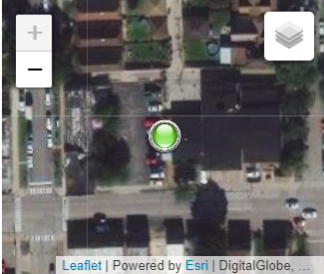
All Times Central, DST Observed

[4996-16: R05 Crawford Plant Demo](#)

Start: 4/28/2020 7:22:39 AM

Description: 6 DustTraks, 3 perimeter air monitoring, 3 residential air monitoring

Location: Chicago, IL



Leaflet | Powered by Esri | DigitalGlobe, ...

(.205) DustTrak

Connection: OK [[Edit](#)]


Intermittent after 45 minute(s)
Down after 90 minute(s)

Lat/Lng: 41.8081000 / -87.7254820

Last Update: 4/28/2020 5:17:46 PM

Latest Readings: [[Edit](#)]

PM1: 0.009 mg/m3 PM2.5: 0.01 mg/m3 RESP: 0.01 mg/m3 PM10: 0.01 mg/m3 Total: 0.01 mg/m3 PM1 TWA: 0.014 twa PM2.5 TWA: 0.014 twa
 RESP TWA: 0.014 twa PM10 TWA: 0.014 twa total TWA: 0.014 twa stel: False bool flow: False bool laser: False bool filter: False bool bat: 85 %



● PM1 (mg/m3)	● PM2.5 (mg/m3)	● RESP (mg/m3)	● PM10 (mg/m3)	● Total (mg/m3)	● PM1 TWA (twa)
◆ PM2.5 TWA (twa)	◆ RESP TWA (twa)	◆ PM10 TWA (twa)	◆ total TWA (twa)		



Daily Summaries

Crawford Power Plant Demolition Emergency Response
Daily Air Monitoring Summary: 04/27/2020

Location	Duration (days:hours:minutes)	PM 2.5 8-Hr TWA	PM 2.5 STEL (Max)	PM 2.5 Daily Max (Instantaneous)	PM 10 8-Hr TWA	PM 10 STEL (Max)	PM 10 Daily Max (Instantaneous)	Units
East Perimeter	00:11:23	0.002	0.010	0.025	0.003	0.014	0.039	mg/m3
North Perimeter	00:11:49	0.013	0.032	0.114	0.019	0.065	0.217	mg/m3
South Perimeter	00:12:32	0.019	0.029	0.197	0.030	0.052	0.230	mg/m3
West Perimeter	00:12:10	0.025	0.052	0.377	0.038	0.086	0.541	mg/m3
Firehouse 109 (Northeast-Offsite)	00:12:01	0.010	0.019	0.025	0.011	0.020	0.026	mg/m3
Firehouse 34 (South-Offsite)	00:11:32	0.021	0.050	0.338	0.021	0.050	0.338	mg/m3
Firehouse 38 (North-Offsite)	00:12:48	0.011	0.025	0.031	0.012	0.027	0.036	mg/m3

Notes:

mg/m3 = milligrams per cubic meter

NA = Not Applicable

STEL = Short-term exposure limit (15-minute duration)

TWA = Time-weighted average

Weather was cloudy with afternoon showers. Temperatures were in the low 60s with winds from the south at 15-20 mph.

Because this is a public health concern, particulate action levels are based on the National Ambient Air Quality Standard (NAAQS) value of 150 $\mu\text{m}/\text{m}^3$ (0.150 mg/m³) PM10. As a result, during real-time monitoring, exceedances of the total dust action level of 150 $\mu\text{g}/\text{m}^3$ (sustained for 5 minutes) will serve as indicators of excessive site migration of particulates. On 4/27/2020, no sustained exceedances above the NAAQS were recorded.



Sources of Information

EPA Neighborhood Site (General Info)

<https://www.epa.gov/il/environmental-issues-chicagos-little-village-pilsen-neighborhoods>

Response.epa.gov Site (Data, Photos, POLREPS, Dashboard)

response.epa.gov/CrawfordPlantDemo

City of Chicago Site (Data, Local Info)

<https://www.chicago.gov/city/en/sites/hilco/home/community-information.html>



Questions?

