

US Army Corps
of Engineers
Chicago District

INDIANA HARBOR AND CANAL CONFINED DISPOSAL FACILITY



AIR MONITORING

SHORT-TERM LONG-TERM



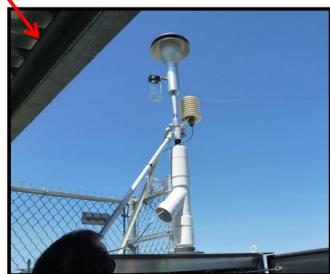
Naphthalene



UV-DOAS uses a single beam of UV light to analyze the "fingerprint" of molecules and measure their concentration over an "open path".

- 4 Ultra-Violet Differential Absorption Spectroscopy (UV-DOAS) monitors measure naphthalene along the perimeter.
- 3 Action Levels will be monitored in real-time to ensure that sediment emissions are within limits set by the USEPA SRA and the IDEM AR permit.

Particulates

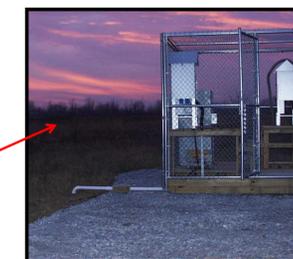


- 4 Hybrid Particulate Monitors measure PM₁₀ "dust" emissions from the CDF in real-time.
- 2 Action Levels will be monitored for adjusting operations.

VOCs



- A handheld photo-ionization detector (PID) will monitor total VOCs once daily near the off-loading barge.



Locations



High-Volume (HI-VOL) vacuum pump air samplers are located at the following locations:

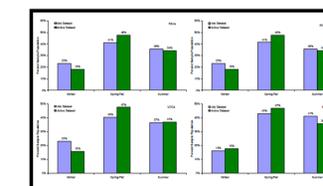
- 4 at IHC CDF (above)
- 1 at East Chicago HS (left)

Purpose

Ambient monitoring stations around the IHC CDF track long-term concentration trends of 27 analytes that fall into several compound classes, including:

- Poly Aromatic Hydrocarbons (PAHs)
- Volatile Organic Compounds (VOCs)
- Metals
- Total Suspended Particulates (TSP)
- Polychlorinated Biphenyls (PCBs)

Concentrations are compared between locations for variations between construction periods, seasonal trends, long-term variations, and other significant statistical factors.



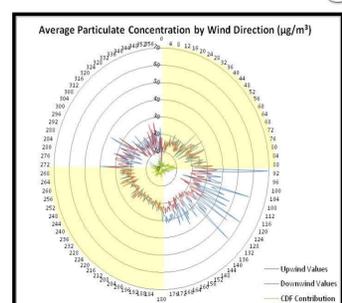
Real-Time Data Access

www.indianaharbordredge.com



UV-DOAS and Particulate data can be accessed in real-time as the monitors detect compounds. PID data and actions taken are posted daily.

Wind Monitoring

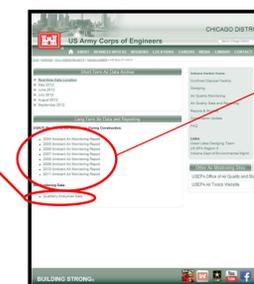


UV-DOAS and Hybrid Particulate monitors will access an on-site weather station in real-time to determine wind direction. The CDF Contribution is based off of the "upwind" minus "downwind" levels.

Data Location & Analysis

Irc.usace.army.mil/Missions/CivilWorksProjects/IndianaHarbor

USGS and ANL maintain an extensive database of ambient air monitoring results. The data was recorded from 2001 to present.



USACE analyzes all air monitoring results and posts annual Ambient Air Monitoring Program reports on the website listed.