

Air Monitoring Summary Tables

The tables below summarize preliminary air monitoring data collected using EPA AreaRAE Pro and DustTrak DRX instruments.

Project Name: Morris Industrial Fire Site
Date/Time: 06/21/2022 07:39 to 06/24/2022 16:15

Northeast Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153912)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.003 to 0.017	0.009
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.004 to 0.018	0.010
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.0	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	Yes (see comment 2)	0.0 to 0.5	0.0

Northwest Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153917)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.000 to 0.019	0.005
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.001 to 0.022	0.007
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 0.4	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Southeast Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533153910)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.002 to 0.020	0.007
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.003 to 0.022	0.008
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.1	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	Yes (see comment 3)	0.0 to 0.8	0.1

Notes: See last page.

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Southwest Air Monitoring Station					
Instrument	Analyte	Morris Industrial Fire Public Health Screening Level ¹	Public Health Screening Level Exceeded?	1-Hour Period Concentration Range	Average of All 1-Hour Periods
DustTrak (S/N: 8533154004)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	No	0.001 to 0.022	0.006
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.002 to 0.023	0.007
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 2.0	0.0
	H ₂ S (ppm)	0.1 ppm	No	0.0 to 0.0	0.0
	HF (ppm)	0.2 ppm	No	0.0 to 0.0	0.0

Comments

Air monitoring measurements have been averaged over a 1-hour time period and summarized above.

Start and stop times for each air monitoring instrument varies. The monitoring period is based on the earliest start time and latest stop time out of

Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.

1 - Morris Industrial Fire Public Health Screening Levels are based on 1-hour time-weighted averages and were established by Agency for Toxic Substances and Disease Registry (ATSDR).

2 - HF 1-hr TWAs were greater than the Action Level at the downwind/crosswind Northeast Station on June 24, 2022 from 7:22 through 9:21 and from 10:21 through 12:06. A mobile instrument, the Single Point Monitor (SPM) Flex, was used to verify the elevated HF measurements during each period. The SPM Flex measured 0 ppm for HF and confirmed HF sensor drift in the AreaRAE Pro instrument. The AreaRAE Pro instruments were then fresh air calibrated.

3 - HF 1-hr TWAs were greater than the Action Level at the downwind Southeast Station on June 21, 2022 from 8:18 through 12:06, on June 22, 2022 from 6:57 through 9:12, on June 23, 2022 from 7:00 through 8:08 and 9:41 through 11:30, on June 24 from 7:20 through 9:21. A mobile instrument, the Single Point Monitor (SPM) Flex, was used to verify the elevated HF measurements during each period. The SPM Flex measured 0 ppm for HF and confirmed HF sensor drift in the AreaRAE Pro instrument. The AreaRAE Pro instruments were then fresh air calibrated.

Notes:

°F - Degrees Fahrenheit
 CO - Carbon Monoxide
 ERRS - Emergency and Rapid Response Services
 H₂S - Hydrogen Sulfide
 HF - Hydrogen Fluoride
 LEL - Lower Explosive Limit
 mg/m³ - Milligrams per cubic meter
 PM_{2.5} - Particles that are 2.5 micrometers and smaller
 PM₁₀ - Particles that are 10 micrometers and smaller
 ppm - Parts per million
 S/N - Serial number
 VOC - Volatile organic compounds

Air Quality Index Categories and Recommendations

Air Quality Index Category	24-Hour Avg. PM2.5 Concentrations (ug/m3)	24-Hour Avg. PM10 Concentrations (ug/m3)	Recommended Actions
Good	0 to 12.0	0 to 54	None
Moderate	12.1 to 35.4	55 to 154	People with heart or lung disease, older adults (65 and up), and children: Consider reducing prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 to 55.4	155 to 254	People with heart or lung disease, older adults (65 and up), and children: Reduce prolonged or heavy exertion.
Unhealthy	55.5 to 150.4	255 to 354	People with heart or lung disease, older adults (65 and up), and children: Avoid prolonged or heavy exertion. Everyone else should reduce prolonged or heavy exertion.
Very Unhealthy	150.5 to 250.4	355 to 424	People with heart or lung disease, older adults (65 and up), and children: Avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.
Hazardous	250.5 to 500.4	425 to 605	Everyone should avoid all physical activity outdoors. People with heart or lung disease, older adults (65 and up), and children should remain indoors and keep activity levels low.

Comment: Illinois Statewide Average 24-hour PM_{2.5} Concentration in 2020: 19.9 ug/m3

Comment: Off-site monitoring locations include both upwind and downwind locations. Elevated PM_{2.5} and PM₁₀ concentrations may represent other sources.

You can access daily average PM2.5 data for fixed monitoring locations here:

<http://www.epa.state.il.us/air/pm25/index.html>. Yesterday's average is available and it looks like you can access data for the trailing 12 months.

You can also get there by visiting the landing page for the Air Quality Index, Ozone, and PM Data:

<https://www2.illinois.gov/epa/topics/air-quality/outdoor-air/Pages/default.aspx>.