

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: 08/15/2022 06:48 to 08/19/2022 16:55

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 / 8533173907)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes (see comment 2)	0.007 to 0.031	0.014
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.007 to 0.044	0.014
AreaRAE Pro (S/N: W01A00002413)	VOC (ppm)	0.5 ppm	No	0.0 to 0.0	0.0
	CO (ppm)	--	No	0.0 to 0.6	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 0.4	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	Yes (see comment 2)	0.002 to 0.049	0.012
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	Yes (see comment 2)	0.003 to 0.051	0.012
AreaRAE Pro (S/N: W01A00002412)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	0.0
	CO (ppm)	--	No	0.0 to 0.7	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: 8533194405 / 85333173907)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes (see comment 2)	0.006 to 0.038	0.016
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.007 to 0.039	0.017
AreaRAE Pro (S/N: W01A00002410)	VOC (ppm)	0.5 ppm	No	0.0 to 0.2	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	No	0.0 to 0.0	0.0

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: 8533154003)	PM _{2.5} (mg/m ³)	0.025 mg/m ³	Yes (see comment 2)	0.005 to 0.026	0.012
	PM ₁₀ (mg/m ³)	0.05 mg/m ³	No	0.005 to 0.027	0.013
AreaRAE Pro (S/N: W01A00002411)	VOC (ppm)	0.5 ppm	No	0.0 to 0.1	0.0
	CO (ppm)	--	No	0.0 to 1.7	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 all units.
Air monitoring is not performed during inclement weather conditions/rain and thunderstorms.
DustTrak 8533153912 swapped for 8533173907 beginning August 16, 2022.
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 - PM _{2.5} 1-hour TWAs at all stations and PM ₁₀ 1-hour TWA for the northwest station were greater than the Action Levels throughout the week. Upwind/off-site elevated levels PM _{2.5} and PM ₁₀ impacted downwind air monitoring stations.
3 - HF exceedances were observed at the northeast station in the morning throughout the week. This is likely due to calibration gas still remaining inside the unit since this occurred immediately after deployment. On August 16, 2022 from 0820 to 0839, there were HF exceedances that were confirmed with an SPM flex at the northeast station. This station was upwind at the time of the exceedances.
Notes: °F - Degrees Fahrenheit CO - Carbon Monoxide ERRS - Emergency and Rapid Response Services H ₂ S - Hydrogen Sulfide HF - Hydrogen Fluoride LEL - Lower Explosive Limit mg/m ³ - Milligrams per cubic meter PM _{2.5} - Particles that are 2.5 micrometers and smaller PM ₁₀ - 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. PM _{2.5} Concentrations (ug/m ³)	24-Hour Avg. PM ₁₀ Concentrations (ug/m ³)	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: <u>Consider reducing</u> 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: <u>Reduce</u> 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: <u>Avoid</u> prolonged or heavy exertion. Everyone else should <u>reduce</u> 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: <u>Avoid all physical activity outdoors.</u> Everyone else should <u>avoid</u> prolonged or heavy exertion.
Hazardous	250.5 to 500.4	425 to 605	<u>Everyone should avoid all physical activity outdoors.</u> 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 PM_{2.5} 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>.