

Air Monitoring Summary Tables

The table below summarizes monitoring data collected on using EPA's Viper wireless remote monitoring system.

Project Name: Weaver Fertilizer Plant Fire

**From: 2/5/22
6:00 AM**

**To: 2/5/22
5:58 PM**



Wake Forest University Police Station							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
DustTrak 1	PM-2.5	See PM2.5 Action Level Sheet	735	735	1 - 28 µg/m3	11.7 µg/m3	See PM2.5 Action Level Sheet
SPM Flex 1	Nitrogen Dioxide (NO2)	No	4523	4523	0 - 0.1 ppm	0.1 ppm	0.5 ppm
SPM Flex 1	Ammonia (NH3)	No	420	0	0 - 0 ppm	0 ppm	30 ppm

North Hills Elementary							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
DustTrak 2	PM-2.5	See PM2.5 Action Level Sheet	735	734	0 - 8 µg/m3	6.4 µg/m3	See PM2.5 Action Level Sheet
SPM Flex 2	Nitrogen Dioxide (NO2)	No	749	749	0.1 - 0.1 ppm	0.1 ppm	0.5 ppm
SPM Flex 2	Ammonia (NH3)	No	757	625	0 - 0.04 ppm	0 ppm	30 ppm

Cherry Street Staging Area							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
DustTrak 3	PM-2.5	See PM2.5 Action Level Sheet	505	487	0 - 456 µg/m3	11.8 µg/m3	See PM2.5 Action Level Sheet
SPM Flex 3	Nitrogen Dioxide (NO2)	No	1499	1499	0.1 - 0.1 ppm	0.1 ppm	0.5 ppm
SPM Flex 3	Ammonia (NH3)	No	13681	163	0 - 0 ppm	0 ppm	30 ppm

Piney Grove Park							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
DustTrak 4	PM-2.5	See PM2.5 Action Level Sheet	751	751	6 - 12 µg/m3	7.3 µg/m3	See PM2.5 Action Level Sheet
SPM Flex 4	Nitrogen Dioxide (NO2)	No	748	748	0.1 - 0.1 ppm	0.1 ppm	0.5 ppm

Weaver Fertilizer Plant Perimeter Station 1							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE 4	VOC	Yes	1361	1356	0 - 13728 ppb	43.6 ppb	1000 ppb
	CO	No	1361	7	0 - 45 ppm	0.1 ppm	83 ppm
	O ₂	Yes	1361	1356	0 - 21.6 %	20.9 %	<19.5 or >23 %
	LEL	Yes	1361	4	0 - 50 %	0.1 %	10 %
	NH ₃	Yes	1361	1100	0 - 30 ppm	3.5 ppm	30 ppm
	NO ₂	Yes	1361	270	0 - 5 ppm	0.1 ppm	0.5 ppm
	γ	Yes	1361	1361	3 - 12 µrem/h	5.2 µrem/h	9 µrem/h

Weaver Fertilizer Plant Perimeter Station 2							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE 5	VOC	Yes	1360	726	0 - 10574 ppb	29.7 ppb	1000 ppb
	H ₂ S	Yes	1360	4	0 - 9.9 ppm	0 ppm	0.51 ppm
	O ₂	Yes	1360	1360	16.8 - 21.6 %	20.9 %	<19.5 or >23 %
	NO ₂	Yes	1360	357	0 - 5 ppm	0.1 ppm	0.5 ppm
	γ	No	1360	1360	3 - 6 µrem/h	5 µrem/h	9 µrem/h

Weaver Fertilizer Plant Perimeter Station 3							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE 6	VOC	Yes	1364	1330	0 - 10383 ppb	27.8 ppb	1000 ppb
	H ₂ S	Yes	1364	5	0 - 10 ppm	0 ppm	0.51 ppm
	O ₂	Yes	1364	1364	6.9 - 23.1 %	19.9 %	<19.5 or >23 %
	NH ₃	Yes	1364	1342	0 - 39 ppm	15.5 ppm	30 ppm
	NO ₂	Yes	1364	363	0 - 5 ppm	0.1 ppm	0.5 ppm
	γ	Yes	1364	1364	2 - 10 μrem/h	5.8 μrem/h	9 μrem/h

Weaver Fertilizer Plant Perimeter Station 4							
Instrument	Analyte	Action Level Exceedance?	Number of Readings	Number of Detections	Concentration Range	Period Average	Action Level
AreaRAE 7	VOC	Yes	1365	262	0 - 9688 ppb	29 ppb	1000 ppb
	H ₂ S	Yes	1365	4	0 - 10.1 ppm	0 ppm	0.51 ppm
	O ₂	Yes	1365	1365	16.5 - 21.8 %	21.1 %	<19.5 or >23 %
	LEL	Yes	1365	5	0 - 48 %	0.1 %	10 %
	NO ₂	Yes	1365	254	0 - 5.3 ppm	0.1 ppm	0.5 ppm
	γ	No	1365	1365	2 - 6 μrem/h	3 μrem/h	9 μrem/h

Notes:

%

Percent

<

Less than

>

Greater than

AEGL

Acute Exposure Guideline Levels for Airborne Chemicals

mg/m3

milligrams per cubic meter

min

Minute

ppb

Parts per billion

ppm

Parts per million

PM

Particulate matter

SOG

Standard Operating Guidelines

SPM

Single Point Monitor

μg/m³

Micrograms per cubic meter

μrem/h

Microrem per hour

γ

Gamma-wave radiation

Analyte	Definition	Action Level Reference
VOC	Volatile Organic Compounds	TEEL-0,15 minute TWA for Benzene
CO	Carbon Monoxide	AEGL-2 1hr
H2S	Hydrogen Sulfide	AEGL-1 1hr
O2	Oxygen	29 CFR 1910.146, Confined Spaces
LEL	Lower Explosive Limit	29 CFR 1910.146, Confined Spaces
NH3	Ammonia	AEGL-1 1hr
γ	Gamma-wave Radiation	Lowest 3x median (background) for RAEs in period
PM-2.5	Particulate Matter <2.5 microns	
Nitrogen Dioxide (NO2)	Nitrogen Dioxide (NO2)	AEGL-1 1hr
Ammonia (NH3)	Ammonia (NH3)	AEGL-1 1hr