

# 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: 2/4/22  
6:00 AM**

**To: 2/4/22  
5:59 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	739	739	1 - 10 µg/m3	3.6 µg/m3	See PM2.5 Action Level Sheet
SPM Flex 1	Nitrogen Dioxide (NO2)	No	13047	13047	0 - 0.1 ppm	0.1 ppm	0.5 ppm
SPM Flex 1	Ammonia (NH3)	No	7595	4379	0 - 0.5 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	390	390	2 - 7 µg/m3	4.3 µg/m3	See PM2.5 Action Level Sheet
SPM Flex 2	Nitrogen Dioxide (NO2)	No	758	758	0 - 0.1 ppm	0.1 ppm	0.5 ppm
SPM Flex 2	Ammonia (NH3)	No	755	568	0 - 1.8 ppm	0.1 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	458	442	0 - 4370 µg/m3	209.4 µg/m3	See PM2.5 Action Level Sheet
SPM Flex 3	Nitrogen Dioxide (NO2)	No	4759	4759	0 - 0.2 ppm	0.1 ppm	0.5 ppm
SPM Flex 3	Ammonia (NH3)	No	8516	7273	0 - 1.4 PPM	0.1 ppm	30 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	761	298	0 - 59179 ppb	145.7 ppb	1000 ppb
	CO	No	761	26	0 - 49 ppm	0.3 ppm	83 ppm
	O <sub>2</sub>	Yes	761	759	0 - 21.5 %	20.6 %	<19.5 or >23 %
	LEL	Yes	761	3	0 - 44 %	0.2 %	10 %
	NH <sub>3</sub>	Yes	761	724	0 - 45 ppm	7 ppm	30 ppm
	NO <sub>2</sub>	Yes	761	39	0 - 21.5 ppm	0.6 ppm	0.5 ppm
	γ	Yes	761	761	2 - 14 µrem/h	5.3 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	756	380	0 - 85498 ppb	192 ppb	1000 ppb
	H <sub>2</sub> S	Yes	756	13	0 - 13.3 ppm	0.1 ppm	0.51 ppm
	O <sub>2</sub>	Yes	756	756	16.1 - 21.2 %	20.9 %	<19.5 or >23 %
	LEL	Yes	247	9	0 - 25 %	0.6 %	10 %
	NO <sub>2</sub>	Yes	756	613	0 - 6.2 ppm	0.1 ppm	0.5 ppm
	γ	No	756	756	3 - 7 µrem/h	5.1 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	566	490	0 - 86892 ppb	354.9 ppb	1000 ppb
	H <sub>2</sub> S	Yes	566	8	0 - 10.3 ppm	0.1 ppm	0.51 ppm
	O <sub>2</sub>	Yes	566	560	0 - 21.4 %	20.6 %	<19.5 or >23 %
	LEL	Yes	57	12	0 - 45 %	4.2 %	10 %
	NH <sub>3</sub>	Yes	566	34	0 - 151 ppm	1.5 ppm	30 ppm
	NO <sub>2</sub>	Yes	566	33	0 - 4.7 ppm	0 ppm	0.5 ppm
	γ	Yes	566	566	2 - 12 µrem/h	5.9 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	No	784	684	0 - 35 ppb	6.3 ppb	1000 ppb
	H <sub>2</sub> S	No	784	0	0 - 0 ppm	0 ppm	0.51 ppm
	O <sub>2</sub>	No	784	784	20.9 - 21.7 %	20.9 %	<19.5 or >23 %
	LEL	No	784	0	0 - 0 %	0 %	10 %
	NO <sub>2</sub>	No	784	14	0 - 0.1 ppm	0 ppm	0.5 ppm
	γ	No	784	784	2 - 4 µrem/h	3.1 µrem/h	9 µrem/h

Notes:		Analyte	Definition	Action Level Reference
%	Percent	VOC	Volatile Organic Compounds	TEEL-0,15 minute TWA for Benzene
<	Less than	CO	Carbon Monoxide	AEGL-2 1hr
>	Greater than	H2S	Hydrogen Sulfide	AEGL-1 1hr
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals	O2	Oxygen	29 CFR 1910.146, Confined Spaces
mg/m3	milligrams per cubic meter	LEL	Lower Explosive Limit	29 CFR 1910.146, Confined Spaces
min	Minute	NH3	Ammonia	AEGL-1 1hr
ppb	Parts per billion	γ	Gamma-wave Radiation	Lowest 3x median (background) for RAEs in period
ppm	Parts per million	PM-2.5	Particulate Matter <2.5 microns	
PM	Particulate matter	Nitrogen Dioxide (NO2)	Nitrogen Dioxide (NO2)	AEGL-1 1hr
SOG	Standard Operating Guidelines	Ammonia (NH3)	Ammonia (NH3)	AEGL-1 1hr
SPM	Single Point Monitor			
µg/m³	Micrograms per cubic meter			
µrem/h	Microrem per hour			
γ	Gamma-wave radiation			

R4 - Weaver Fertilizer Explosion

Weaver Fertilizer Plant Explosion

epa.maps.arcgis.com/apps/dashboards/ff323123cd50498b989dac713d66b20a

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Weaver Fertilizer Explosion  
EPA Activities Dashboard

Water Mon: 11:56:00

VIPER sta: 3002

VIPER sta: 3001

Weaver Fertilizer Plant

VIPER sta: 3003

VIPER sta: 3004

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2/4/2022