Air Monitoring Summary Tables

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

Project Name: **Moody Landfill Fire**

From: **3/11/23 6:00 AM** **To:** **3/12/23 9:00 AM**

The predominant pollutant observed at monitoring stations is small particulate matter: PM-2.5. The "Concentration Range" column in the tables below shows minimum and maximum levels. The "Period Average" column is the most useful value and represents a full 24-hour day. The PM-2.5 Period Average is compared to the "24-Hour Average" column in the Communit Action Thresholds Table that is attached.

Note: line graphs show PM-2.5 in units of mg/m3 while tables on pages 1 and 2 show PM-2.5 in ug/m3. (1 mg/m3 = 1,000 ug/m3)

EPA Air Quality Station 03						
Instrument	**Analyte**	**Action Level Exceedance?**	**Concentration Range**	**Period Average**	**Action Level**	**Action Level Basis**
MultiRAE 3	VOC	No	0-0ppb	0.0 ppb	9000 ppb	AEGL-1, 8-hr
	CO	No	0-0ppm	0.00 ppm	27 ppm	AEGL-2, 8-hr
	LEL	No	0-0%	0.00 %	10%	29 CFR 1910.146, Confined Spaces
	HCN	No	0-1ppm	0.0097 ppm	2 ppm	AEGL-1 , 1-hr
DustTrak 3	PM-2.5	No	1-323µg/m³	21 µg/m³	See Community Action Threshold Levels	PM2.5 Community Action Threshold Levels

EPA Air Quality Station 07						
Instrument	**Analyte**	**Action Level Exceedance?**	**Concentration Range**	**Period Average**	**Action Level**	**Action Level Basis**
MultiRAE 4	VOC	No	0-0ppb	0.0 ppb	9000 ppb	AEGL-1, 8-hr
	CO	No	0-0ppm	0.00 ppm	27 ppm	AEGL-2, 8-hr
	LEL	No	0-0%	0.00 %	10%	29 CFR 1910.146, Confined Spaces
	HCN	No	0-1ppm	0.0783 ppm	2 ppm	AEGL-1 , 1-hr
DustTrak 4	PM-2.5	No	0-261µg/m³	15 µg/m³	See Community Action Threshold Levels	PM2.5 Community Action Threshold Levels

Notes:

%	Percent
<	Less than
>	Greater than
AEGL	Acute Exposure Guideline Levels for Airborne Chemicals
C/m	Counts (ionization events) per minute
mg/m3	milligrams per cubic meter
min	Minute
PAC	Protective Action Criteria
PEL	Permissible exposure limit
ppb	Parts per billion
ppm	Parts per million
PM	Particulate matter
SOG	Standard Operating Guidelines
SPM	Single Point Monitor
TEEL	Temporary Emergency Exposure Limit
TLV	Threshold limit value
µg/m³	Micrograms per cubic meter
µrem/h	Microrem per hour
α	Alpha radiation (Ludlum 2241-2 can measure α under specific configuration)
β	Beta radiation (Ludlum 2241-2 can measure β under specific configuration)

Comments: All station period averages under 35 µg/m³

$PM_{2.5}$ (Particulate Matter ≤ 2.5 microns) Community Action Threshold Levels				
1-Hour Average (µg/m³)	**24-Hour Average (µg/m³)**	**Level of Health Concern**	**Meaning**	**Action**
0.0 - 40.0	0.0-12.0	**Good**	Air Quality is considered satisfactory, and air pollution poses little or no risk.	Implement communication plan.
40.1 - 80.0	12.1 - 35.4	**Moderate**	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually senstive to air pollution.	Issue public announcement about health effects. Stay out of areas with visible smoke.
80.1 - 175.0	35.5 - 55.4	**Unhealthy for Sensitive Groups**	Members of sensitive groups may experience health effects. The general public is not likely to be affected.	Recommend evacuation or shelter-in-place for sensitive populations.
175.1 - 300.0	55.5 - 150.4	**Unhealthy**	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.	Consider closing schools and cancelling outdoor events. Recommend shelter-in-place for affected neighborhoods.
300.1 - 500.0	150.5 - 250.4	**Very Unhealthy**	Health warnings of emergency conditions. The entire population is more likely to be affected.	Consider closing schools and cancel all outdoor events. Recommend shelter-in-place and/or evacuation for affected neighborhoods.
> 500.0	> 250.5	**Hazardous**	Health alert: everyone may experience more serious health effects.	Recommend closing schools & cancel outdoor events. Recommend closing workplaces and evacuating affected neighborhoods.

This table is only designed for respirable particulates ≤ 2.5 microns in diameter averaged over a time period of either 1 hour or 24 hours

When comparing airborne particulate data to this table, ensure that the correct size franction, average, and units are used (1,000 µg/m3 is equivalent to 1 mg/m³)