Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for 06/11/2021

Air Quality Forecast: This is the daily forecasted Air Quality Index (AQI) for each area provided by the PA Department of Environmental Protection. The AQI is based on PM2.5 or Ozone, whichever is forecasted to be higher.

Forecast Period	Pittsburgh Area	Liberty-Clairton Area	
Today Friday 6/11/21	PM2.5 Good 42 AQI	PM2.5 Good 47 AQI	
Tomorrow Saturday 6/12/21	Ozone Good 49 AQI	PM2.5 Good 47 AQI	

Today's Forecast: A front will stall out not too far to our south today, and this will result in mostly cloudy skies with showers and thunderstorms developing once again. The extensive cloud cover will not permit the significant development of ozone, and rainfall potential along with an east wind will keep fine particulate levels down in the good range.

See Page 2 for the Air Quality Index guide

Data provided by the PA Department of Environmental Protection

ACHD Air Dispersion 36-Hour Forecast: This is the dispersion forecast for Allegheny County starting from this morning through tomorrow afternoon. The atmospheric dispersion index is a rating of the atmosphere's ability to transport pollution away from its source and is based on emissions and weather. Better atmospheric dispersion can improve air quality.

Forecast Period		Atmospheric Dispersion Index	Surface Inversion Strength	Wind (dir, mph)	
Today	->-	Morning	Generally Poor – 14	None	E 5 to 10
		Afternoon	Fair - 23		E 5 to 10
Tonight)	Evening	Poor – 9		E 5 to 10
		Overnight	Very Poor – 4		E 5 to 10
Tomorrow	->-	Morning	Fair — 24	None to Weak	NE 5
		Afternoon	Fair— 34		NE 5
	- \	Morning	Fair — 24	None to Weak	NE 5

See page 2 for the Atmospheric Dispersion Index guide and the daily Surface Temperature Inversion Report.

ACHD Remarks: Chance of thunderstorms and showers today into tonight.

Data provided by the National Weather Service (NWS) Fire Weather Planning Forecast and PIT NWS Products

Prepared by: CG Date: 6/11/2021 Time: 8:30 am 1

Guide to the Air Quality Index (AQI)				
Color	Description Meaning		AQI	
Red	Unhealthy	Everyone should limit exertion outdoors.	151 - 200	
Orange	Unhealthy for Sensitive Groups	Sensitive people should limit exertion outdoors.	101 - 150	
Yellow	Moderate	Extremely sensitive people may wish to limit outdoor exertion.	51 - 100	
Green	Good	No health impacts are expected in this range.	0 - 50	

Guide to the Atmospheric Dispersion Index						
Very Poor	Poor	Generally Poor	Fair	Generally Good	Good	Very Good
1 - 6	7 - 12	13 - 20	21 - 40	41 - 60	61 - 100	> 100

ACHD Surface Temperature Inversion Report:

This is the 7 AM surface-based temperature inversion report for Allegheny County.

This morning's surface inversion of $-\overset{\circ}{\underline{-}}\overset{\circ}{\underline{C}}$ with a depth of $-\underline{\underline{-}}$ is estimated to break at $-\underline{\underline{-}}$. This surface inversion can be characterized as: None/Slight / Weak / Moderate / Strong.

No upper inversion above ~ 1000 meters is reported.

What does the Surface Temperature Inversion Report mean?

A surface temperature inversion is a weather pattern that stops mixing of the air near the ground, and pollution released into the air tends to remain at higher concentrations.

Surface temperature inversion conditions include how strong the surface inversion is (in °C), how high the inversion is above the surface (in meters), and when the inversion is expected to break (in Eastern Standard Time). Also included is whether an upper-level inversion or inversions exist, starting at about 1,000 meters.

<u>Surface Temperature Inversion Characterization</u>

0-0.9 C°: Slight 1-2.9 C°: Weak 3-4.9 C°: Moderate ≥5 C°: Strong



