Air Quality Forecast and Dispersion Outlook of Allegheny County, Pennsylvania for   8/7/23

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 Monday 8/7/23	PM2.5 **Good** 44 AQI	PM2.5 **Good** 45 AQI
Tomorrow Tuesday 8/8/23	PM2.5 **Good** 48 AQI	PM2.5 **Good** 48 AQI

See Page 2 for the Air Quality Index guide

Data provided by the PA Department of Environmental Protection

Today's Forecast:
Mostly cloudy Monday as an area of low pressure and an associated cold front move out of the Great Lakes. Good air quality may return with showers and thunderstorms as well as breezy south winds.

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 Good – 45	--	S 10-15
	Afternoon	Generally Good – 53	--	SW 15
Tonight	Evening	Fair – 21	--	W 10-15
	Overnight	Generally Poor – 14	--	W 15
Tomorrow	Morning	Good – 67	--	W 15
	Afternoon	Very Good – 120	--	W 15

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

ACHD Remarks:

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

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 inversion of __ **-- °C** __ with a depth of __ **-- m** __ is estimated to break at __ **-- AM** __.

This inversion can be characterized as: **None** / Slight / Weak / Moderate / Strong.

There is not an upper inversion ~1000 meters 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.

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

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