



Introduction to air emissions and local sources

Jefferson County, West Virginia

For starters, what are air emissions?

According to the United States Environmental Protection Agency (EPA), emissions is the term used to describe the gases and particles which are put into the air or emitted by various sources.

What do we mean by direct air emissions?

The EPA National Emissions Inventory (NEI) data is a comprehensive and detailed estimate of air emissions calculated based on substance levels originating from sources within the county's geographic boundaries. Not included in these figures are the air emissions transported from upstream sources.

How are air emissions measured?

Every three years, the EPA works with air pollution organizations, industry, and researchers at the state, county and local levels to compile a comprehensive summary of air emissions data known as the National Emissions Inventory (NEI). The NEI is based on a set of data that serves as the most comprehensive national and local view of emission estimates and hazardous air pollutants.

What are the primary source types?

Emissions in Jefferson County, WV as with all counties, states and at the national level are broken into two source types – point and nonpoint. A point, or single emitter source, refers to emissions sources from a fixed location such as a farm, industrial facility or commercial institution. Non-point sources are often termed 'diffuse' and are defined by sources that may be abundant and smaller in magnitude and generally occur over a wide area not easily attributed to a single source.

Air emissions in the Jefferson County community

In reviewing all sources of air emissions outlined in the 2014 EPA NEI dataset we have developed an analysis of individual substances in Jefferson County, WV. The figures and information used below include the contribution from various existing industry sectors as well as any expected ROCKWOOL Ranson WV factory emissions.

What other resources are available to the public to learn more?

The EPA provides access to [air quality data](#) collected at outdoor monitors across the state with the closest location being in Martinsburg, WV. There is also an annual report on air quality published by the West Virginia Department of Environmental Protection.

The NEI data is separated by industry sectors and within each sector, there are several sources of emissions. Below are those relevant to our analysis of Jefferson County data and examples of specific sources for each sector.

- Agriculture: crops and livestock dust, fertilizer applications, and livestock waste.
- Biogenic: natural sources such as vegetation and soil.
- Dust: construction dust, paved road dust, and unpaved road dust.
- Fires: agricultural field burning, prescribed fires, and wildfires (excludes home fires).
- Fuel combustion: composed of residential, commercial and industrial sources of energy creation including biomass, coal, natural gas, oil and other.
- Industrial processes: storage and transfers as well as pulp and paper production.
- Miscellaneous: bulk gasoline terminals, commercial cooking, gas stations, and waste disposal.
- Mobile: aircraft, commercial marine vessels, locomotives, non-road diesel, non-road gasoline, on-road diesel vehicles, on-road non-diesel vehicles.