

Web site Resources

Clean Diesel at Mid America Regional Council

www.marc.org/Environment/airQ/cleandiesel.asp

Idling Reduction Rule for JO and WY Counties

www.kdheks.gov/bar/posthearing.html

Idling Rule in the Kansas Registry

www.kssos.org/Pubs/register/2010/Vol_29_No_23_June_10_2010_p_857-976.pdf

Johnson County Environmental Department

www.sharetheair.org/

Kansas Clean Diesel Program Grants

www.kdheks.gov/bar/air-monitor/dieselgrant.html

Kansas Small Business Environmental Assistance Program

www.sbeap.org

KC IDLE FREE

www.sustainablekylinekc.org/about.asp

KDHE, Bureau of Air

www.kdheks.gov/bar/index.html

National Clean Diesel Campaign

www.epa.gov/diesel/

Unified Government Wyandotte County, Kansas City KS

www.wycokck.org/dept.aspx?id=5108&menu_id=942&banner=15284

Air Pollution Glossary

Attainment: Designated area is within EPA established limits for criteria pollutant(s).

Criteria Pollutants: A group of very common air pollutants regulated by EPA on the basis of health and/or environmental effects.

Non-attainment: Designated area exceeds EPA established limits for one or more criteria pollutants. The designated area can be in attainment for some pollutants but non-attainment for others at the same time.

Off-road mobile sources: Construction equipment, aircraft, trains, etc., are considered "off-road mobile sources."

On-road mobile sources: Cars, busses, heavy-duty trucks, and motorcycles are defined as "on-road mobile sources," since they move on roads.

Opacity: The obscuring power of an emission expressed in percent. Example: An exhaust stack at a fictional "Zorch" plant emits white smoke. When you look through the smoke at the background, you can see 80% of the background. Therefore, the opacity of the smoke is 20%.

Stationary sources: Industrial/commercial sources are defined by the Clean Air Act as "stationary sources." Buildings don't move, hence the classification as "stationary."

Volatile Organic Compounds (VOC): Any organic compound which participates in atmospheric photochemical reactions. Types of VOCs: solvents, oil-based paint, gasoline, alcohol, and petroleum-based inks.

How ground-level ozone is formed: VOCs + Sunlight + Heat = ground-level ozone.

List of Acronyms

APU = Auxiliary Power Unit

ARRA = American Recovery and Reinvestment Act

BOA = Bureau of Air (at Kansas Dept. of Health and Environment)

CARB = California Air Resources Board

CO = Carbon Monoxide

CO₂ = Carbon Dioxide

DERA = Diesel Emissions Reduction Act

DOC = Diesel Oxidation Catalyst

DPF = Diesel Particulate Filter

EPA = Environmental Protection Agency

HAP = Hazardous Air Pollutant

KDHE = Kansas Department of Health and Environment

NO_x = Nitrogen Oxides

PM (PM_{2.5} or PM₁₀) = particulate matter (less than 2.5 microns or 10 microns in size)

PPB = parts per billion

PPI = Pollution Prevention Institute (at K-State)

PPM = parts per million

SBEAP = Small Business Environmental Assistance Program

VOC = Volatile Organic Compound

EPA Criteria Pollutants

The United States Environmental Protection Agency (EPA) has established standards for the six most common and pervasive air pollutants in the country. The pollutant, its sources, and health effects are listed below:

POLLUTANT	SOURCES	HEALTH EFFECTS
Carbon monoxide	Combustion processes, such as cars & industry. Burning of organic material.	Replaces oxygen in the bloodstream; aggravates heart disease; impairs alertness.
Lead	Smelters, battery plants & refineries; exhaust of vehicles that use leaded gasoline; lead-based paint and pottery.	Increases risk of harm to central nervous system, especially in children.
Nitrogen Oxides	Combustion processes such as cars & power plants.	Impairs breathing, increases lung infections & worsens existing lung disease.
Ground-level ozone* *This is ozone found in the troposphere, where we breathe. High concentrations of naturally-occurring ozone are found in the upper atmosphere and shield us from harmful radiation. The "ozone hole" is a thin place in the layer, and it's widely believed that some man-made chemicals, most commonly those used for refrigeration, make the ozone hole larger than it is naturally.	Formed when heat & sun-light mix with pollutants, called VOCs, from industry (solvents, paints, inks), vehicle & household products (gasoline, paints, cleaners).	Irritates eyes, nose, throat; increases asthma attacks, & impairs athletic performance.
Particulate matter (PM-2.5) - 2.5 microns or smaller.	Dust, pollen, soot, & other small particles in the air. Most commonly a product of combustion from power plants and diesel engines.	Irritates lungs' pathways which can increase respiratory infection & asthma attacks & worsen disease.
Sulfur dioxide	Oil-and coal-burning power plants; some industrial processes.	Increases respiratory infections and asthma attacks; worsens chronic lung disease.