

THE FACTS ABOUT REFORMULATED GAS



WHAT IT DOES AND WHY WE HAVE IT

LOUISVILLE METRO AIR POLLUTION CONTROL DISTRICT

The air in Louisville has improved greatly since the 1970s, when the Clean Air Act imposed tough standards on pollution from factories and vehicles. Our skies aren't as smoggy as they used to be, but cleaning the air is an ongoing effort.



What is Reformulated Gas?

Reformulated gas (RFG) is blended to burn more cleanly than conventional gasoline. It is used in Louisville to help reduce both ground-level ozone, a harmful chemical that damages the lungs, and air toxics.

Why do we use it in Louisville?

In 1995, Kentucky voluntarily opted into the RFG program to reduce the volatility of commercial gasoline during the summer ozone season. Ozone is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOx) – two pollutants emitted by vehicles and factories – are “cooked” by the sun on hot summer days. Louisville, along with parts of Bullitt and Oldham Counties, relies on federal RFG requirements as part of the plan required for maintaining the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS). As such, it is a required control measure under the federal Clean Air Act.

Why don't people like RFG?

The main reason is price. Refiners say it costs more to make RFG, and they pass that cost onto motorists at the gas pump. Since 1995, the use of RFG has contributed toward lowering VOC and NOx emissions in Louisville. Since then, the implementation of additional federal control measures – including Tier 3 Motor Vehicle Emissions and Fuel Standards, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, improved fuel efficiency standards for Medium and Heavy-Duty Engines, and Corporate Average Fuel Economy Standards (CAFE) – along with fleet turnover have further reduced NOx and VOC emissions in the area. Today, RFG use reduces **35 tons of VOCs** and **37 tons of NOx emissions** each ozone season in Louisville and smaller amounts in Bullitt and Oldham Counties.

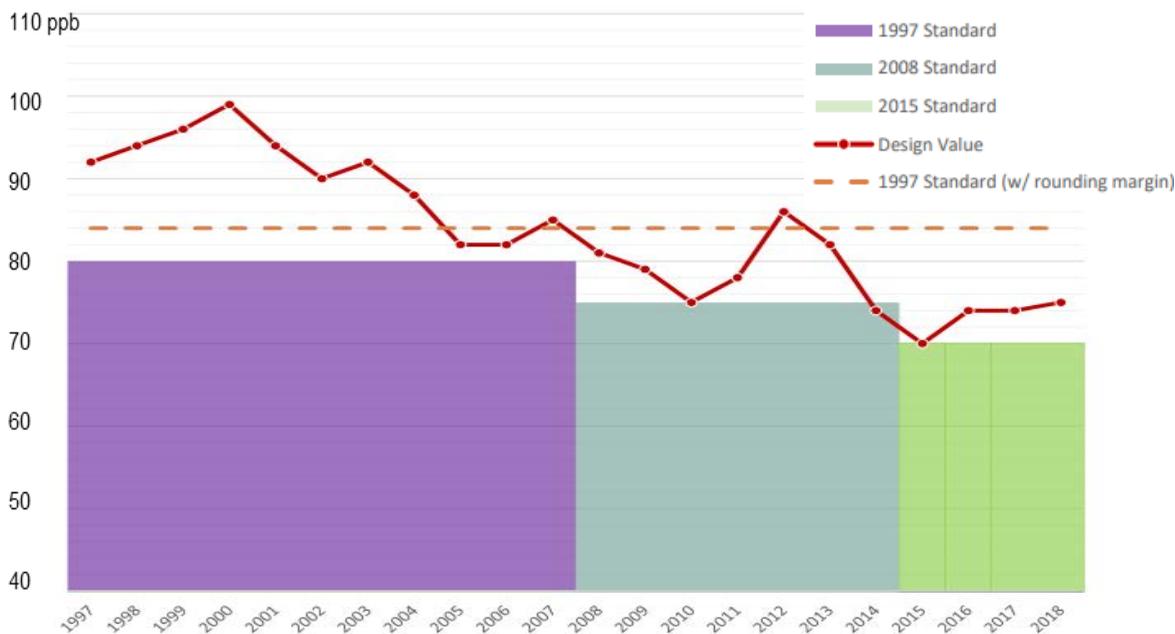
Why don't they use it anymore in Northern Kentucky?

In 2018, the U.S. Environmental Protection Agency determined that even though switching from RFG to conventional gas requirements in Boone, Campbell, and Kenton Counties in Northern Kentucky would result in a small increase in VOC and NOx emissions, removing RFG would not interfere with attainment or maintenance of any NAAQS or with any other applicable requirement of the Clean Air Act for ozone and other pollutants, including carbon monoxide, sulfur dioxide, particulate matter, and NOx. This determination was based on an evaluation of RFG reductions projected through 2030, and an analysis of the trend in monitoring levels for ozone, which in that area in 2014–2016 showed compliance with the strengthened 2015 ozone NAAQS of 70 parts per billion (ppb).

What if we just got rid of RFG?

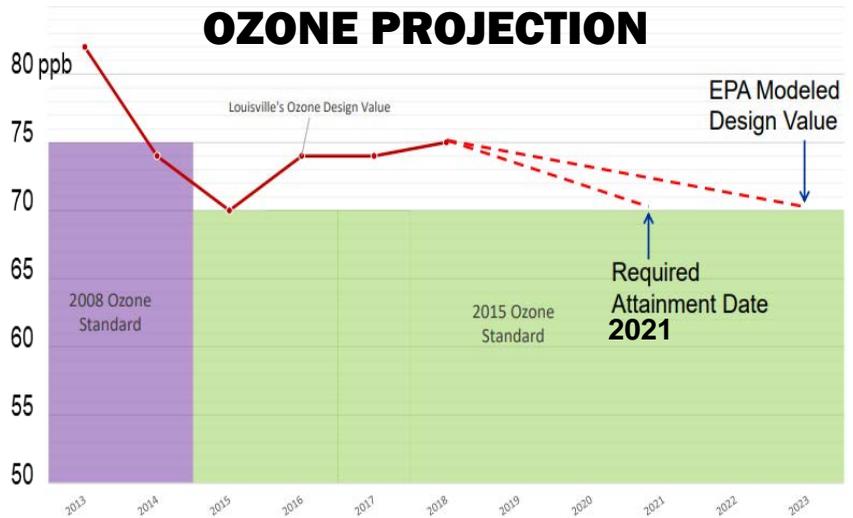
Unfortunately, ozone trends in the Louisville area have not been as favorable as those in Northern Kentucky. Monitored levels of ozone for the Louisville area during 2014–2016, 2015–2017, and 2016–2018 were 73 ppb, 74 ppb, and 75 ppb, respectively. As a result, the EPA subsequently designated the area as “marginal” nonattainment for the 2015 ozone NAAQS of 70 ppb.

LOUISVILLE AREA OZONE TREND



As a federal control measure, removing RFG in the Louisville area would require a demonstration that the increase in emissions will not interfere with or prevent the area from reaching attainment. This will include VOC and NOx reductions sufficient to maintain compliance with the 1997 ozone NAAQS and meet the more stringent 2015 ozone standard by August 2021. All such reductions must be quantifiable, surplused, permanent, and enforceable.

LOUISVILLE AREA OZONE PROJECTION



Why not just ask local industry to do more?

Louisville's factories and power plants have made significant reductions in emissions as a result of the Clean Air Act and the Strategic Toxic Air Reduction Program (STAR) and we will continue to look for pollution reductions from them. Still, motor vehicles continue to be a significant source of air pollution in Louisville even with the sophisticated emissions control equipment mandated by the EPA. Requiring motorists to use RFG during ozone season is one of the few ways we can directly impact the amount of pollution from car and truck tailpipes.

What's next?

The Air Pollution Control District is currently conducting a study on local emissions of VOCs and NOx to get a better understanding of ozone formation. And the District will soon form a stakeholder group made up of members of the community to help build consensus around our efforts – especially voluntary ones – to meet the new ozone standard. RFG is one of many tools that will be on the table when that stakeholder group begins its work.

POLLUTION SOURCES

