

A low-angle photograph of the St. Louis Gateway Arch, showing its two massive, white, curved legs rising towards a blue sky with scattered white clouds. The arch's surface has a subtle grid pattern. In the bottom left corner, there are green trees with some yellow flowers.

Summary of Air Quality Conformity Determination

FY 2022 – 2025 Transportation Improvement
Program and Related Amendments to
Update to *Connected2045*

September 2021

Purpose of Air Quality Conformity

- Projects must be analyzed to determine conformity with state air quality plans prepared for ozone standards
- All projects must be included in the analysis
- Projects not included in the analysis cannot progress/move ahead toward implementation

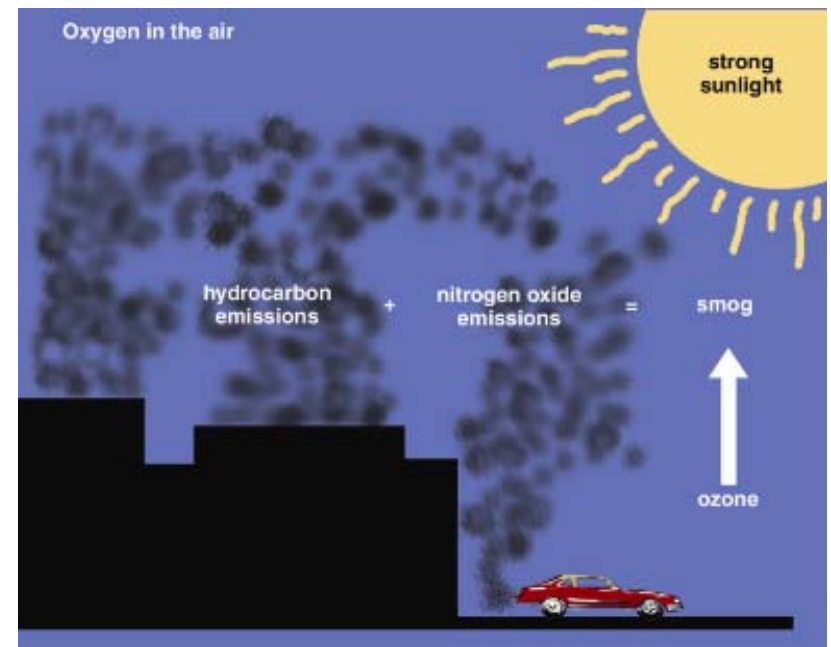


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What Is Ozone?

- Ground level ozone is formed when hydrocarbons (or volatile organic compounds – VOC) and nitrogen oxides (NO_x) from vehicle exhaust and other industrial processes chemically react with oxygen in the lower atmosphere
- Weather influences formation – strong sunshine, low wind speed and temperature of 85° and higher

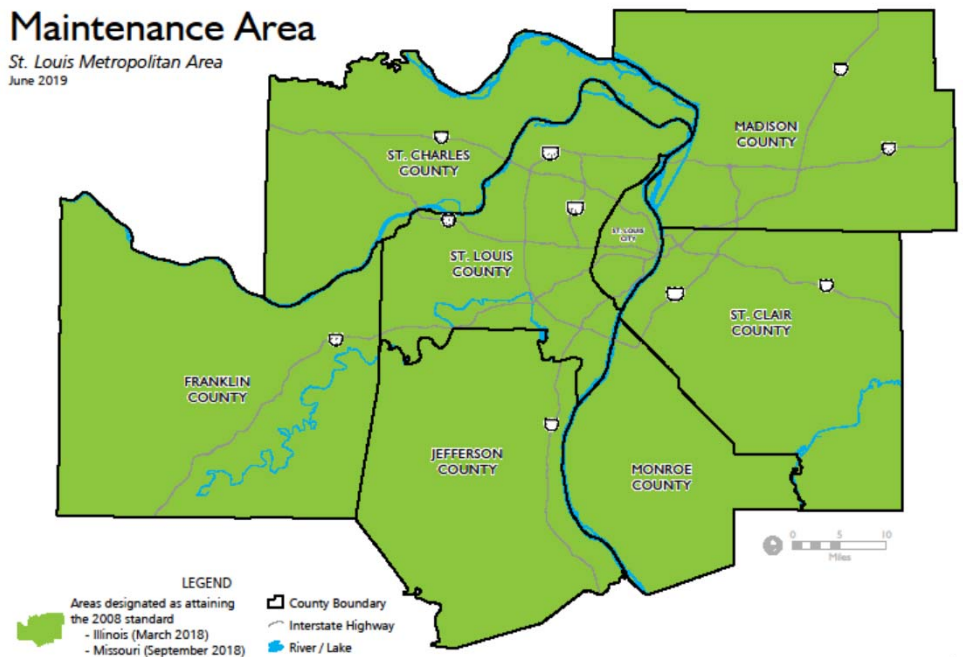


2008 Ozone Standard

- EPA has re-designated the eight-county St. Louis region (MO-IL) as being in attainment of this standard
- Considered a maintenance area
- **EPA has not revoked this standard so a Conformity Determination has to be performed for it**

2008 Ozone Standard Maintenance Area

St. Louis Metropolitan Area
June 2019



Source: East-West Gateway Council of Governments



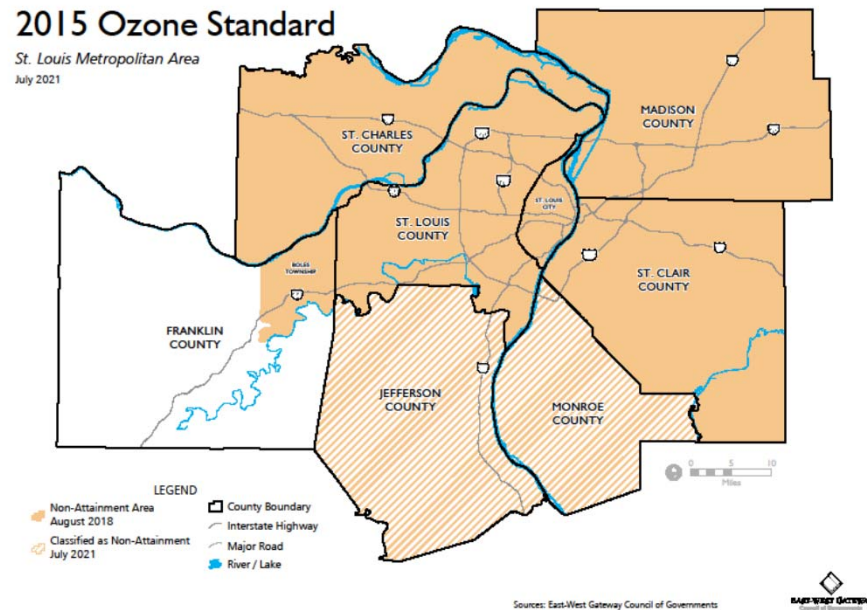
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2015 Ozone Standard

Non-Attainment Area 2015 Ozone Standard

St. Louis Metropolitan Area
July 2021



- In 2018, EPA designated as non-attainment: St. Charles and St. Louis Counties, City of St. Louis and Boles Township in Franklin County MO; and Madison and St. Clair Counties IL
- In July 2021, EPA reclassified Jefferson County MO and Monroe County IL as non-attainment
- **As this area is still non-attainment for this standard, Conformity Determination has to be performed for it**



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Air Quality Conformity Determination Process - Ozone

- Projects included in the Transportation Improvement Program (TIP) must pass regional emissions analysis tests for VOC and NO_x for selected future analysis years out to 2045 (horizon year for *Connected2045* Update)
- Federal and state regulations require that for each analysis year, emissions of VOC and NO_x resulting from the implementation of the TIP (Action) will be less than or equal to the motor vehicle emissions budgets (budgets) established by Missouri and Illinois in their respective State Implementation Plans (SIPs)
 - Involves a series of computer modeling exercises



Missouri - Regional Emissions Analysis Results

2008 Ozone Standard 5 County Maintenance Area		
Analysis Year	VOC Action≤Budget	NO _x Action≤Budget
2025	Pass	Pass
2030	Pass	Pass
2035	Pass	Pass
2045	Pass	Pass

- For 2025 - Modeled Action emissions are compared to 2015 Budgets for VOC and No_x from MO SIP
- For remaining analysis years - Modeled Action emissions are compared to 2030 Budgets from MO SIP

2015 Ozone Standard 4 County & 1 Township Non-Attainment Area		
Analysis Year	VOC Action≤Budget	NO _x Action≤Budget
2025	Pass	Pass
2030	Pass	Pass
2035	Pass	Pass
2045	Pass	Pass

- For 2025 - Modeled Action emissions are compared to 2015 Budgets from MO SIP
- For remaining analysis years - Modeled Action emissions are compared to 2030 Budgets from MO SIP

Illinois - Regional Emissions Analysis Results

2008 Ozone Standard 3 County Maintenance Area		
Analysis Year	VOC Action≤Budget	NO _x Action≤Budget
2025	Pass	Pass
2030	Pass	Pass
2035	Pass	Pass
2045	Pass	Pass

- For 2025 - Modeled Action emissions are compared to 2025 Budgets for VOC and No_x from IL SIP
- For remaining analysis years - Modeled Action emissions are compared to 2030 Budgets from IL SIP

2015 Ozone Standard 3 County Non-Attainment Area		
Analysis Year	VOC Action≤Budget	NO _x Action≤Budget
2025	Pass	Pass
2030	Pass	Pass
2035	Pass	Pass
2045	Pass	Pass

- For 2025 - Modeled Action emissions are compared to 2025 Budgets from IL SIP
- For remaining analysis years - Modeled Action emissions are compared to 2030 Budgets from IL SIP



Air Quality Conformity for 1997 Eight-Hour Ozone Standard

- Only to be performed if there is a Regionally Significant Project(s) in Jersey County
 - There is no new regionally significant Jersey County project in the TIP



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