

NATIONAL AIR QUALITY STANDARDS

GREENHOUSE GAS REGULATION

MULTIPOLLUTANT STRATEGIES

WICHITA, KANSAS

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National Ambient Air Quality Standards (NAAQS)

- EPA sets standards for six “criteria” pollutants:
 - Particulate Matter
 - Carbon Monoxide
 - Nitrogen Dioxide
 - Sulfur Dioxide
 - Lead
 - **Ozone (ground-level)**



Ozone: Good up high, bad nearby

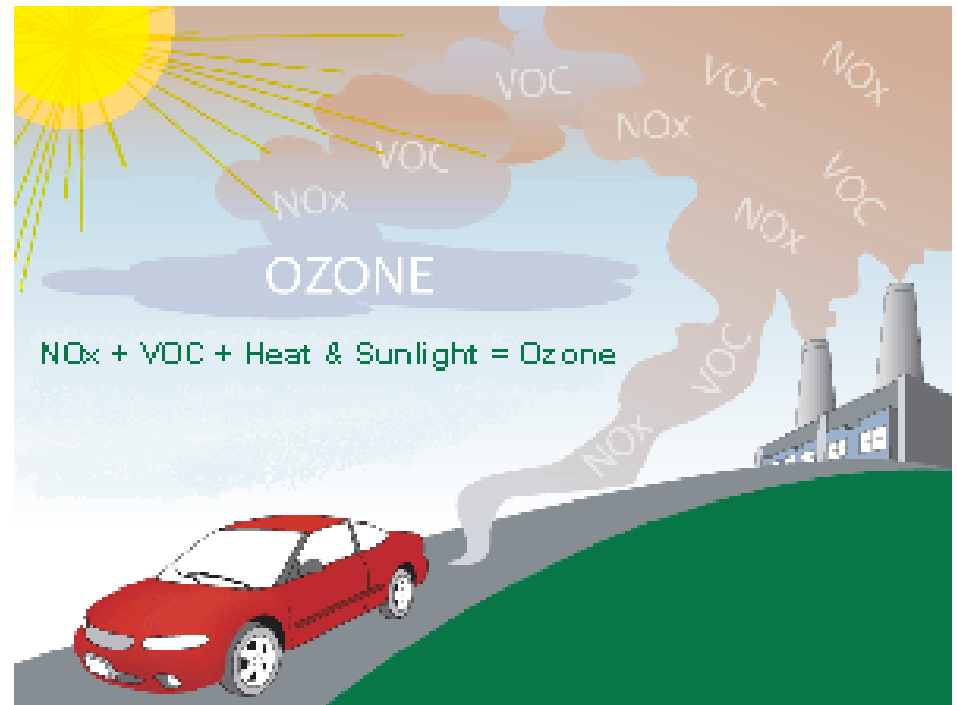
Nitrogen Oxides (NO_x)

+

Volatile Organic
Compounds (VOC)

+

Sunlight & heat =
Ozone formation



Setting National Air Quality Standards

- Standards reviewed every 5 years
- Extensive scientific review & public input
- Current review schedule (primary standards):

| | Lead (Pb) | Nitrogen Dioxide (NO₂) | Sulfur Dioxide (SO₂) | Ozone (O₃) | Carbon Monoxide (CO) | Particulate Matter (PM) |
|--------------------|----------------------|--|--|----------------------------------|-------------------------------------|--|
| Standard Proposed | Nov 2013 | June 2009 | Nov 2009 | Jan 2010 | Jan 2011 | Jan 2011 |
| Standard Finalized | Sept 2014 | Jan 2010 | June 2010 | Oct 2010 | Aug 2011 | Oct 2011 |

A lower Ozone standard in 2010?

- EPA is reconsidering the 2008 ozone standard
- Considering a range between 60-70 parts per billion (current level is 75)
- Looking at 1700+ scientific studies, recommendations of the agency's science advisors, and public comments
- Level expected to be announced in October 2010

NAAQS Implementation – in general

NAAQS Implementation Timeline – an example

| | | |
|--|-----------------------------|--------------------------|
| Final Rule | | October 2010 |
| States make designation recommendations to EPA | Within 1 year | October 2011 |
| EPA makes designations | Within 1 year | October 2012 |
| Attainment SIPs due to EPA | Within 3 years | October 2013 |
| Attainment date | anywhere from 2 to 20 years | As early as October 2015 |

SIPs: State Implementation Plans

- State Implementation Plan (SIP): a legally enforceable plan for how the area will improve air quality
- Contains inventory of emissions, emission budgets, control strategies, and backup plans
- Sanctions imposed if State does not submit an acceptable SIP

GREENHOUSE GAS (GHG) REGULATIONS: “TAILORING RULE”

A brief history of GHG regulation

- April 2007, Supreme Court finding:
 - *GHGs are air pollutants*
- December 2009, EPA's endangerment finding:
 - *GHGs threaten public health and welfare*
 - *GHGs from motor vehicles contribute to atmospheric concentrations of GHGs*
- January 2011, GHG regulation:
 - *GHG motor vehicle regulations take effect*
 - *GHG regulations for major stationary sources take effect*

GHG regulation – major stationary sources

- Construction permit required for a new major stationary source of air pollution, or for major modifications
- Usual definition of major (criteria pollutants): 100 tpy of any pollutant, or 250 tpy of a combination
- For GHGs, these levels would mean too many facilities would need permits
- GHG “Tailoring Rule” – phases in over time – begins January 2, 2011, adjusts definitions of major for GHGs

GHG permitting – major stationary sources

GHG permitting levels by July 2011:

- Operating permit needed for facilities that emit 100,000 tpy or more
- Construction permit needed for:
 - New facilities that would emit 100,000 tpy or more
 - Major modifications that would emit 75,000 tpy or more

Air planning in the KC metro area

- Coordinated by Mid-America Regional Council (MARC)
- Clean Air Action Plan – voluntary strategies to reduce ozone levels
- Multipollutant considerations:

AIR TOXICS

Greenhouse Gasses

Hazardous Air Pollutants

Volatile Organic Compounds

Particulate Matter

Voluntary strategies to improve air quality

- Public information / awareness campaigns
- Carpool / Vanpool / Transit programs
- Offer incentives to retrofit construction equipment
- Encourage native landscaping & low water landscapes – reduces the need to mow
- Update building energy codes
- Land use and transportation – build more sustainable communities

