Air Quality Updates

BRIAN KOZISEK
AIR DIVISION
GRANTS, PLANNING, & OUTREACH UNIT

Cross State Air Pollution Rule (CSAPR)

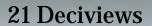
- Intended to control ozone & PM emissions in downwind states
 - Required power plant emission reductions of NO_X & SO₂
- Final Rule issued July 6, 2011
 - o August 21, 2012: US Court of Appeals vacated rule
 - January 24, 2013: US Court of Appeals denied EPA rehearing petition
 - March 29, 2013: US Solicitor General petitioned Supreme Court review
- Clean Air Interstate Rule (CAIR) still in effect
 - Nebraska not included in CAIR
- EPA implementing Court of Appeals Ruling
 - EPA must identify each state's contribution independently
 - April, 2013: Began discussion with states on implementation

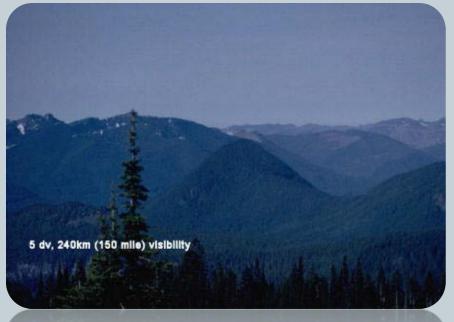
Regional Haze Rule

 Improve visibility in 156 National Parks & Wilderness Areas

Mt. Rainier, Washington







5 Deciviews

21 dv, bukm (31 miles) visibility

o dv, z4ukm (15u mile) visibility

Regional Haze Rule

- Reduce SO₂ & NO_x at nearby large emission sources
 - Requires Best Available Retrofit Technology (BART)
 - Nebraska BART determination for Gerald Gentlemen Station (GGS) denied by EPA
 - ➤ Federal Implementation Plan (FIP) issued by EPA to require additional controls
- May 30, 2012: EPA issued "Better than BART" Rule
 - o If source subject to CSAPR, then meets BART requirements
 - GGS FIP utilizes "Better than BART" Rule
 - × CSAPR vacated...now what?
- Nebraska RH Progress Report due June, 2016

National Ambient Air Quality Standards

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide		primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Lead		primary and secondary	Rolling 3 month average	$0.15 \mu g/m^3$	Not to be exceeded
Nitrogen Dioxide		primary	1-hour	100 ppb	98th percentile, averaged over 3 years
		primary and secondary	Annual	53 ppb	Annual Mean
Ozone		primary and secondary	8-hour	0.075 ppm	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particle Pollution	PM _{2.5}	primary	Annual	12 $\mu g/m^3$	annual mean, averaged over 3 years
		secondary	Annual	$15 \mu g/m^3$	annual mean, averaged over 3 years
		primary and secondary	24-hour	35 μg/m³	98th percentile, averaged over 3 years
	PM ₁₀	primary and secondary	24-hour	150 μ g/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide		primary	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

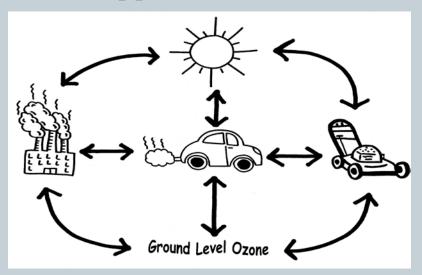
Particulate Matter

- PM_{2.5} Primary Standard
 - O Lowered from 15 μg/m³ to 12 μg/m³ in December, 2012
 - O Parts of Omaha & Bellevue approaching 12 μg/m³



2014 Ozone Standard

- New proposed ozone standard expected December, 2013
 - Final standard expected September, 2014
- CASAC recommends 60-70 ppb
 - Current Omaha MSA 3-year DV > 65 ppb
 - \times 2012 level = 76 ppb



2010 Sulfur Dioxide Standard

- New 1-hour standard issued in 2010
 - Set at 75 ppb
 - Replaced the annual and 24-hour standards
- NDEQ submitted a designation recommendation of "attainment"
 - Based upon current monitored data
- EPA may require that attainment demonstration use monitoring & modeling data
 - Expecting further EPA guidance & rulemaking in 2013

What is "Nonattainment"?

- Nonattainment = Criteria Pollutant concentration in a geographic area exceeds the NAAQS threshold
- NDEQ must develop a Nonattainment SIP
 - Plan to reduce pollutant and precursor levels in the area
- What are Nonattainment SIP options?
 - Nonattainment NSR
 - **▼ Install Lowest Achievable Emission Rate (LAER) controls**
 - **Emission offsets**
 - Transportation Conformity
 - Federal General Conformity
 - Voluntary Measures

RICE NESHAP

- Rule issued on March 3, 2010
 - o Revised January 30, 2013
 - Emergency engine operation limits
- Applies to new & existing stationary CI & SI engines
- Emergency Engine Limits
 - Unlimited for emergencies
 - o 100 hr/yr for maintenance/testing & emergency demand*
- Compliance date = May 3, 2013 unless extension granted
 - Performance test completed w/in 180 days of compliance date

Proposed Title 129 Changes

- Chapter 1: Definitions
 - Remove list of exempt organic compounds not classified as VOCs in section <u>160</u>
 - Replace with reference to CFR with listing of exempt organic compounds
 - Correct minor formatting and typographical errors
- Chapter 22: Incinerators; Emission Standards
 - Correct minor formatting and typographical errors

Chapter 4: Ambient Air Quality Standards

- Reformat to make each standard match the federal standards
- Amend gaseous standards to "ppm" or "ppb" nomenclature
 - \circ CO, NO₂, O₃, & SO₂ are in "µg/m³" in Title 129
- Update SO₂ to current 1-hour standard
 - Remove revoked annual arithmetic mean & 24-hour standard
- Remove the "secondary standard" for CO
- Add the 2008 8-hour O₃ standard
 - Remove the revoked 1-hour O₃ standard
- Update lead standard to 0.15 µg/m³
 - Update averaging time & form
- Update CFR attainment method references

Chapter 19: PSD

- Remove $PM_{2.5}$ air quality analysis threshold in section 016.07A3
- Remove SIL for PM_{2.5} in section <u>018.02</u>
 - Due to January 22, 2013 Court of Appeals decision
 - Will bring Title 129 into compliance with current EPA regulations
 - If not adopted, Title 129 is less stringent than the federal rules
 - **▼** SIP submittals with these provisions likely deficient and not approvable
- Remove the word "not" before "incomplete" in sections 23.01 and 23.02
 - Correct the intent of the regulations
- Minor formatting the typographical corrections

Chapter 28

- Update the effective date of the CFR in section <u>001</u>
 - Incorporates all amendments to NESHAPs through July 1, 2012 into Title 129
- Add missing language to sections <u>001.87</u> and <u>001.88</u>

Title 129 Changes Not Proposed

- January 4, 2013 Court of Appeals ruled on 2007 $PM_{2.5}$ NAAQS Implementation Rule and 2008 NSR/PSD rule for the 1997 $PM_{2.5}$ NAAQS
 - EPA should have used PM₁₀ nonattainment requirements (Subpart 4) not general nonattainment requirements (Subpart 1)
 - Doesn't affect status of current PM_{2.5} standard
 - \times Affects the implementation of the PM_{2.5} standard
 - x Could affect attainment areas as well as nonattainment areas
 - Specifically for addressing precursors in permitting program
- Amendments to Chapters 1, 20, and 22
 - Finalize the implementation of program for PM_{2.5} in CP
 - Unknown how rules will change
 - Not proposing revisions until rulemaking completed by EPA or further guidance provided

Questions?

