OZONE AND NOX UPDATE

CIBO E&E MEETING

SEPTEMBER 15 & 16, 2015

BRITTANY M PEMBERTON

BRACEWELL & GIULIANI LLP

OZONE NAAQS


THOUGH BENNY'S INTEREST IN SCIENCE WAS COMMENDABLE, SOME OF HIS EXPERIMENTS WERE ILL-ADVISED.

Ozone NAAQS

CIBO Participation

- 2008 Ozone NAAQS :75 ppb
- 11/25/14 proposal: 65–70 ppb
- Coalition comments filed 3/17/15
- Joint industry letters to President: June and July 2015

Ozone NAAQS

Potential Impact of Lower Standard

- **65–70 ppb range**
  - EPA: $3.9 billion/year by 2025
- **Large number of areas in nonattainment**
  - 15 of top 20 metropolitan area economies in nonattainment at 70 ppb
- **EPA projects most of country in attainment by 2025**

Ozone NAAQS

OMB Review of Final Rule

- **10/1/15 court deadline for final rule**
- **Final rule at OMB since 8/28**
  - EPA may be seeking 70 ppb
  - White House could lower standard to 68 ppb

Ozone NAAQS

OMB Stakeholder Meetings

- NAAQS Implementation Coalition
- Phillips 66
- NAM
- U.S. Chamber
- NESCAUM
- AFPM
- IPAA
- API
- PCA
- AF&PA
- American Academy of Pediatrics
- American Thoracic Society
- American Lung Association

NOX CONTROL COST MANUAL

NOx Control Cost Manual

EPA Proposed Revisions

- **SNCR, SCR cost estimates last updated 2002**
- **include equations to estimate installation & O&M cost**
  - used to estimate costs of rules and of controls (BACT, BART, e.g.)
- **EPA sought comment on**
  - reasonable estimate of equipment life
  - difference between utility and industrial costs
  - reasonable contingency factor

NOx Control Cost Manual

Coalition Comments

- **Coalition Members:**
  - ACC
  - AF&PA
  - American Wood Council
  - AFPM
  - BIA
- **Coalition Comments (9/10/15):**
  - too much reliance on utility units
  - controls not always effective for certain types/sizes of units
  - more emphasis on operating costs
  - SNCR cost: > $2,000/MMBtu/hr (much higher than utility boilers)
  - SCR catalyst cost: $8,000 - $10,000/m3

NOx Control Cost Manual

CIBO Input

- capital recovery factor wrong
- installation cost for retrofits impacted by space constraints
- performance testing cost must be included
- SNCR capital cost directly related to boiler load range while controlled
- equipment life: SNCR 10-20 yrs, SCR 20 yrs
- reasonable contingency factor: 10-15%, up to ~25% based on site conditions