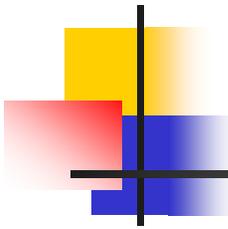


Final Amendments to the Regional Haze Rule: BART Rule Making

June 28, 2005

Joseph Paisie



1999 Regional Haze Rule

- Visibility Protection in 156 Class I areas
- BART is part of the Regional Haze rule
- Regional Haze goal is to achieve natural background levels by 2064
- Natural background levels means no manmade visibility impairment

Regional Haze Rulemaking Timeline

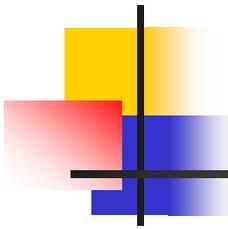
[1]

- July 1999: Regional Haze Rule
- July 2001: Best available retrofit technology (BART) guidelines proposed
- May 2002: DC Cir. in *American Corn Growers* vacates BART provisions in RH Rule
 - Court objected to inclusion of individual sources based on collective assessment of visibility impacts from all sources
- April 2004: RH BART provisions / BART Guidelines repropose

Regional Haze Rulemaking Timeline

[2]

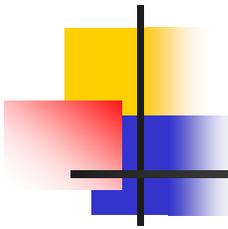
- Feb 2005: DC Cir. in *CEED* vacates “WRAP Annex Rule,” also due to BART-related provisions
 - Court remanded trading programs for WRAP states
- June 15, 2005: BART finalized
- November 8, 2005: Issue finalized BART Trading & WRAP Annex rule
- Dec 17, 2007: Regional Haze SIPs due



BART Guidelines Package

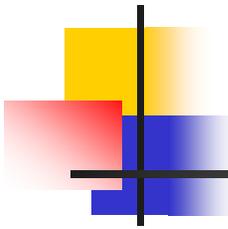
Overview

- How to determine if a source meeting initial CAA criteria is “reasonably anticipated to cause or contribute to haze” – i.e. is subject to BART
- How to determine what BART is at a particular source – i.e., how to apply the 5 CAA factors
- States have a fair amount discretion in making BART determinations
- Determination that Clean Air Interstate Rule (CAIR) is “better than BART” and thus can substitute for BART for Electricity Generating Units (EGUs) in the CAIR states
- Presumptive limits for EGUs > 750 MW



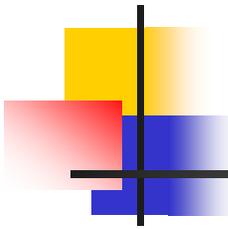
Sources which are BART-Eligible under the CAA

- Major sources >250 tons per year
- Built between 1962 and 1977
- 26 source categories, including EGUs & industrial boilers, kraft pulp mills, and refineries



3 Steps in Determining BART

- Is a source BART-eligible?
- Is the source reasonably anticipated to cause or contribute to regional haze in any Class I area?
 - If so, the source is subject to BART
- For sources subject to BART, make a BART determination



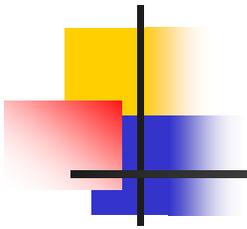
Determining if a Source is Subject to BART

- 3 Options:
 - Individual source assessment
 - Cumulative assessment of all BART-eligible sources
 - Assessment based on model plants



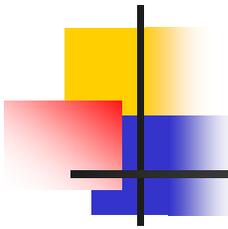
Subject to BART (cont)

- Perform source-specific analysis:
 - Use CALPuff or other EPA approved model
 - Compare to natural background
 - “Cause” = impact of 1.0 deciview or more
 - “Contribute” – 0.5 deciview (State may set lower threshold)
- Consider all eligible sources to be subject, based on an analysis of an area’s contribution to visibility impairment -- or demonstrate that *no* sources are subject, based on cumulative modeling.
- Develop model plants to exempt sources with common characteristics
 - BART Guidelines provide example model runs



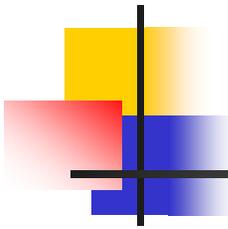
For all sources subject to BART, States determine BART based on 5 CAA Factors:

- Costs of compliance
- Energy and non-air environmental impacts
- Existing controls at source
- Remaining useful life of source
- Visibility improvement reasonably expected from the technology



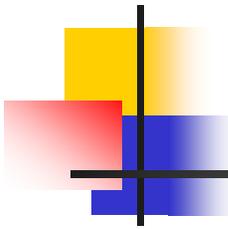
Guideline is binding for 750 MW power plants

- For EGU plants >750 megawatt (MW), CAA requires BART determinations to be made pursuant to EPA guidelines.
 - Guidelines' procedures mandatory for these sources
 - Guidelines contain presumptive control levels
- For EGU units ≥ 200 MW (not at 750 MW plants): encourage use of presumptive controls
 - Because of evidence that such controls are cost effective
- All other source categories: guidelines are guidance only



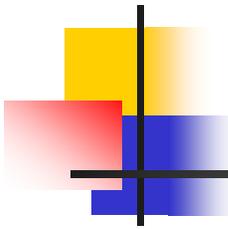
Presumptive controls for EGUs over 750 MW

- **SO₂: 95%** control or 0.15 lbs/MMBtu.
- **NO_x:**
 - In NO_x SIP call area, extend use of controls to year-round.
 - Outside NO_x SIP call area, current combustion controls
 - 0.2 – 0.45 lbs/mmBtu, depending on coal and boiler type



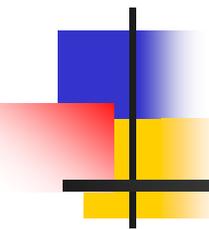
CAIR “better than BART” Demonstration

- Rule contains EPA’s determination that CAIR will result in greater progress than BART
 - Demonstration in CAIR final rule
 - Updated analysis in final BART rulemaking
 - Criteria for determination includes an emissions test and a visibility improvement test



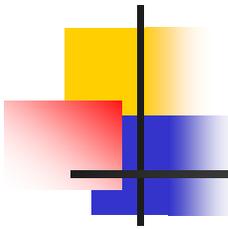
Alternatives to BART and WRAP Rulemaking

- EPA will repropose BART-alternative provisions and finalize by November 8, 2005:
 - Provisions for how States estimates benefits of source-by-source BART for purposes of comparing to an alternative program
 - Parts of RHR §309 at issue in that case
 - Other parts of 309 to address problems identified in SIP reviews
- Revisions to WRAP Annex provision in response to CEED decision



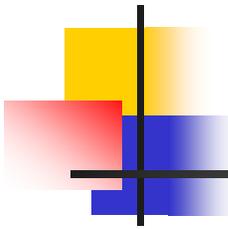
Appendix

Court Cases



Major Points of the 2002 Remand – American Corn Growers

- The Court vacated our approach to deciding which sources are reasonably anticipated to contribute to regional haze in any Class I area
 - Rejected our approach to assessing visibility impacts by evaluating the impacts cumulatively from all BART facilities.
 - Approach did not look at individual source contributions to haze
 - Approach lacked necessary process by which States can exempt individual sources
- The Court also vacated our approach to determining the degree of visibility improvement from use of such technology
 - Rejected our approach to assessing visibility impacts by evaluating cumulatively the effect of reductions from all BART facilities.
 - Approach did not account for impacts on haze of individual source controls



February 2005 CEED Decision

- Issue litigated by Center for Energy and Economic Development: EPA's approval of the "WRAP Annex" in June 2003.
 - Court granted CEED's petition. Court again objected to provision which "required" States to group BART sources when assessing visibility impacts, even if the requirement is contained in a program entirely optional to States.
 - Court upheld EPA interpretation that Act does allow for emission trading program alternatives to BART.
 - Ruling requires us to conduct additional rulemaking on trading.