

New Source Review Program Update

A&WMA Louisiana Section

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October 30, 2012

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Overview

- **Greenhouse Gas Program Update**
- **PM_{2.5} NSR Program Update**
- **1-hour NO₂ Standard/ Guidance**
- **1-hour SO₂ Standard/Guidance**
- **Ozone NSR Anti-backsliding Rule**
- **Rule Reconsiderations**



Overview -- GHG Permitting Activities

- **Tailoring Rule**
 - **Tailoring Rule Step 3**
 - **Proposal comment period ended on April 20, 2012**
 - **Final rule published on July 12, 2012.**
 - **Will not change permit applicability thresholds.**
 - **Finalized regulatory text to implement GHG PALs**
 - **5-year GHG NSR study and Step 4 final rule planned for 2016**



GHG Permit Status

- **As of August 2012, about 160 permit applications submitted that likely include a GHG component and include source categories such as:**
 - Ethylene Production, Electric Generating Units, Natural Gas Fractionation, NGL Export, Refineries, Petrochemical Production
- **Roughly 55 GHG permits issued nationwide.**
 - 9 of these by EPA; others issued by state/local permitting authorities
- **EPA is currently reviewing/processing approximately 38 GHG permit applications where EPA will issue the permits**
- **GHG Best Available Control Technology (BACT) generally involves energy efficiency measures**
- **Lessons learned: documentation of GHG control considerations and BACT limits is important for a robust permit record, cross-cutting laws such as ESA, NHPA, MSA impact timing**



Biomass and GHG Permitting

- ▶ **Biomass Deferral**
 - ▶ In July 2011, EPA issued a rule to defer preconstruction permitting requirements for biomass-fired CO₂ *and other biogenic* CO₂ emissions for a period of three years. Applies to CO₂ emissions only
 - ▶ Part of federal PSD rules; States with SIPs must adopt
 - ▶ Several facilities (boilers, landfills) have used deferral
- ▶ EPA sent biomass accounting framework to Science Advisory Board (SAB) in Sept 2011
 - ▶ 18 member Biogenic Carbon Emission Panel to review EPA framework
 - ▶ In Jan 2012, SAB released preliminary draft of its report
- ▶ **Next steps:**
 - ▶ SAB to issue letter on biomass scientific study (Fall 2012)
 - ▶ EPA to address SAB comments as appropriate
 - ▶ If necessary, EPA would propose rule on how to treat biomass in permitting



PM NAAQS Proposal

- **Proposed on June 14, 2012. Final Rule due December 14, 2012**
- **Strengthens the annual health standard for fine particles by setting the standard at a level within the range of 12.0 to 13.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The current annual standard level of 15.0 $\mu\text{g}/\text{m}^3$ has been in place since 1997**
 - **EPA also is seeking comment on alternative levels of the annual standard, down to 11.0 $\mu\text{g}/\text{m}^3$.**
- **Retains the existing 24-hour fine particle health standard level of 35 $\mu\text{g}/\text{m}^3$. EPA set this 24-hour standard in 2006**
- **Sets a separate fine particle welfare standard to address visibility effects associated with particles, primarily in urban areas. EPA is proposing two options for the level of this secondary 24-hour standard: 30 deciviews or 28 deciviews**
 - **EPA is also proposing to retain the current welfare standards to address non-visibility welfare effects**
- **Updates certain monitoring and permitting requirements for fine particles**



PM NAAQS Proposed Changes to Permitting Provisions

- EPA is proposing changes to its requirements for PSD permits to:
 - Ensure that changes to the PM standards will not delay pending permits
 - Reduce potential burdens to permit applicants.
- EPA is proposing to grandfather permit applications if a draft permit or preliminary determination has been issued for public comment by the date the revised PM standards become effective
- EPA is proposing to implement a “surrogacy approach” that would allow, for purposes of the proposed secondary visibility index, permit applicants to rely on their analysis demonstrating that PM_{2.5} emissions increases would not cause or contribute to a violation of the 24-hour mass-based standards
 - EPA believes requiring separate PSD air quality analyses for the proposed secondary PM_{2.5} visibility index could present practical difficulties for industry that would impose unreasonable costs, uncertainty and permitting delays.
 - EPA believes that this approach will ensure that new or modified pollution sources will not cause or contribute to a violation of the proposed visibility index.



PM_{2.5} Increments, SILs, SMC

- **Final rule published on 10/20/2010**
- **Rule establishes PM_{2.5} increments for Class I, II and III PSD areas**
 - **“Trigger date”: 10/20/2011**
 - **“Major source baseline date”: 10/20/2010**
- **Rule establishes Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC)**
 - **SILs: Class I, II and III (annual, 24-hr)**
 - **SMC**
 - **Both SILs and SMC are discretionary for States**



PM_{2.5} Increments, SILs, SMC (Cont)

- EPA received reconsideration request from TCEQ and Sierra Club – EPA granted on minor procedural issues – no stay of the rule – but was subsequently sued by Sierra Club on PM_{2.5} SILs and SMC
- SIL and SMC litigation is now underway, challenging EPA's legal authority to use SILs and SMC and de minimis demonstration for PM_{2.5} SILs and SMC
- EPA supports both PM_{2.5} SILs and SMC but requested that Court remand and vacate regulatory text at paragraph 40 CFR 51.166(k)(2) and 52.21(k)(2)
- EPA is evaluating the need for interim guidance on PM_{2.5} SILs to address PSD permitting for PM_{2.5} and SIP approvals involving regulatory text from paragraph (k)(2). Currently we encourage States work with EPA on a case-by-case basis to address permitting and SIP issues.



PM and Condensable Emissions

- 2008 PM_{2.5} NSR Implementation Rule amended definition of “Regulated NSR Pollutant” to require CPM for PM₁₀ and PM_{2.5}
- Definition inadvertently included CPM for “PM emissions”
- On March 16, 2012, EPA proposed to revise definition to remove CPM requirement for “PM emissions.” Include CPM only if required by specific NSPS or SIP
- Final rule anticipated on October 25, 2012



PM_{2.5} Modeling Guidance

- **Guidance memo issued on March 23, 2010**
- **2nd Round of modeling guidance to be released in 2013**
- **Current guidance provides for NAAQS compliance demonstration based on PM_{2.5}**
 - **Accounts for statistical form (avg of 98th percentile 24-hr values) for 24-hour PM_{2.5} NAAQS**
 - **Calls for greater reliance on ambient monitoring data to account for secondary PM_{2.5} in a cumulative analysis**
 - **Recommends approach for comparing a source's contribution against a modeled violation**
- **Future guidance may address precursor emissions, secondary formation of PM_{2.5}, role of background concentrations in cumulative impact analysis and consultation/protocol aspects in modeling demonstrations.**



1-hour NO₂ Standard

- **1-hour NO₂ NAAQS: Effective date 4/12/2010**
 - NAAQS = 100 ppb
 - Standard is attained when the 3-year average of the 98th percentile of the annual distribution of daily maximum 1-hour concentrations does not exceed 100 ppb

- **Sources reported permitting challenges when modeling compliance with the 1-hour NO₂ NAAQS**
 - Statistical form of NAAQS
 - Emergency equipment and other low-stack emissions units
 - Small property boundaries: “Ambient air”

- **Two Guidance memos issued for implementing PSD permit requirements**



1-hour NO₂ Permit Implementation Guidance

- **June 29, 2010 Phase I NO₂ Guidance Memo**
 - **Permitting guidance**
 - **Credit for GEP height**
 - **Air quality-based emissions limits**
 - **Accounting for emergency equipment**
 - **Interim 1-hour NO₂ SIL – 4 ppb**
 - **Modeling guidance:**
 - **3-tiered approach for modeling NO conversion to NO₂ [Greater focus on tier 3 detailed modeling]**
 - **Statistical form of NAAQS**
- **March 1, 2011 Supplemental Modeling Guidance for NO₂/SO₂**
 - **Clarifies procedures for NAAQS compliance analysis using interim 1-hour NO₂ SIL**
 - **Clarifies use of Tier 2 and 3 options for NO₂ conversion**
 - **Provides criteria for exclusion of “intermittent emissions”**
 - **Clarifies determination of background concentrations and their incorporation in cumulative analysis**



1-hour SO₂ Standard

- **1-hour SO₂ NAAQS, Effective date 8/23/2010**
 - **NAAQS = 75 ppb**
 - **Standard is attained when the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations does not exceed 75 ppb**
- **EPA issued guidance to assist in the PSD permitting and modeling procedures**



1-hour SO₂ Permit Implementation Guidance

- August 23, 2010 SO₂ Guidance Memo
- Permitting guidance
 - Interim 1-hour SO₂ SIL – 3 ppb
 - Air quality-based emissions limits
 - Proper use of GEP stack height
- Modeling guidance:
 - Accounting for statistical form of 1-hr NAAQS
 - Representativeness of available monitoring data
 - Appropriate methods for combining modeled concentrations with monitored background data



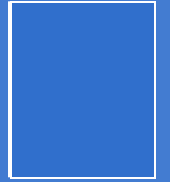
Ozone NSR Anti-backsliding Rule

- August 24, 2010 proposal to clarify the states' obligation to retain non-attainment NSR requirements specific to the 1-hour ozone standard when implementing the 1997 8-hour ozone NAAQS.
- EPA now intends not to finalize the original proposal, but to instead address all outstanding NSR anti-backsliding issues for both the 1-hour and 1997 8-hour ozone NAAQS in a current proposal under development.



Aggregation, Debottlenecking and Project Netting Rule

- In 2006, EPA proposed changes to the Aggregation, Debottlenecking and Project Netting provisions
- 1/09 Final Rule – Aggregation only. EPA withdrew proposed Debottlenecking rule and took no action on Project Netting
- Aggregation Reconsideration granted 2/09
- On 5/20/2010, effective date delayed indefinitely pending judicial review



Questions?