

New Source Review Current Issues

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The National Association of Clean Air Agencies (NACAA)

- Association of State and Local Air Pollution Control Agencies in 53 states and territories and more than 165 metropolitan areas across the country.
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What I Will Cover in this Talk

- Listing and brief comment on a number of outstanding issues
 - 2002 reforms
 - 2006 debottlenecking, aggregation, and project netting
 - 2007 reasonable possibility in recordkeeping
 - 2007 flexible air permitting rule
 - 2007 reconsideration of inclusion of fugitive emissions
- More concentrated look at PM-2.5 NSR and ozone nonattainment issues
- Listing of additional issues being discussed

2002 Reforms

- Baseline actual emissions (10-year lookback)
- “Actual-to-future actual” test for emission increases (replacing actual-to-potential)
- Clean unit exemption
- Plantwide applicability limits (PALs)
- Pollution control project exclusion (PCPs)
- State plans adopting these rules were due in 2006

2002 Reforms—Court Action in 2005

- Permissible interpretations of the CAA
 - Actual-to-future-actual applicability test
 - Use of 10-year lookback (5-yrs in some)
 - Exclusion of unrelated emissions increases due to demand growth in future emissions projections
 - The abandonment of a provision authorizing states to use source-specific allowable emissions in measuring baseline emissions
 - Actuals based PALs

2002 Reforms—Court Action in 2005

- Impermissible interpretations of the Act
 - Clean Unit applicability test (because it would allow increases in actual emissions without review)
 - Pollution Control Projects exemption (again because it would allow increases in actual emissions of some pollutants without review)
- EPA directed to provide clarity on “reasonable probability”
 - EPA subsequently tried to deal with this issue, but it is currently under reconsideration.

2002 Reforms—Remaining Issues

- EPA SIP approvals for state plans adopting the rules in nonattainment areas (backsliding?)
- EPA SIP approvals for state plans demonstrating equivalence of existing rules or modifications to the 2002 reforms
- Baseline calculation
 - 10-year lookback may have records concerns
 - Different baselines for different pollutants
 - Inclusion of emissions from startups, shutdowns, and malfunctions (lack of experience and general guidance)
- Projection of future actual emissions
 - Exclusion of demand growth (lack of experience and general guidance)
- Lack of use of the PAL provisions

Debottlenecking, Aggregation, and Project Netting

- Proposed in September of 2006
- January, 2009 notice retains the existing rules and explains that source owners and permitting authorities should combine emissions when changes are “substantially related” – either from an economic or technical standpoint. Furthermore, this final rule specifies that:
 - a source can not group changes based on timing alone,
 - to be aggregated, changes are required to have more in common than just supporting the plant’s overall basic function, and
 - sources and permitting authorities can presume that plant modifications that are separated by three or more years are not substantially related, unless they can prove otherwise.
- May 8, 2009 - This final rule extends until May 18, 2010, the effective date of the January 12, 2009 aggregation rule. During this time, EPA will reconsider the final aggregation rule.
- With respect to the other two components of the originally proposed rule, EPA withdrew the proposed rule options for “debottlenecking” and took no action on the proposed rule for “project netting.”

Reasonable Possibility in Recordkeeping

- In December 2007, the final “reasonable possibility” rule identified when a major source undergoing a physical or operational change not triggering major NSR permitting requirements must keep records. This final rule also specified the recordkeeping and reporting requirements on those sources.
- On February 20, 2008, the State of New Jersey petitioned EPA to reconsider and stay the final rule. The petitioner argued that:
 - EPA failed to give the notice required under both the Administrative Procedure Act and the Clean Air Act (CAA) for its decision not to require post-change recordkeeping and reporting where sources exclude certain emissions from their projections (i.e., those not related to the change) because it was not a “logical outgrowth” of the proposed rule; and
 - the final rule does not address the aspects of the NSR Rule remanded by the D.C. Circuit as, in New Jersey’s view, it remains unenforceable and unlawful.

Reasonable Possibility in Recordkeeping

- January, 2009 Administrator Johnson denied New Jersey's petition.
- March, 2009 New Jersey resubmitted its petition.
- April, 2009 Administrator Jackson announced the rule will be reconsidered, but a stay was not issued.
- Problems with this rule are that it continues to place the decision regarding recordkeeping at the source level and then requires only pre-change records. The problem identified by the court remains—"how, absent recordkeeping, it (EPA) will be able to determine whether sources have accurately concluded that they have no 'reasonable possibility' of significantly increased emissions."

Flexible Air Permitting Rule

- EPA's proposed options under the operating permits program define and clarify the use of alternative operating scenarios (AOSs) and approved replicable methodologies (ARMs).
 - **Alternative Operating Scenarios (AOSs)** – An AOS enables a source to obtain approval to make changes to existing emissions units by including in the permit an explanation of how the facility would continue to assure compliance with the different Clean Air Act requirements. For example, an AOS for an existing boiler might allow the unit to switch from oil to coal (if it were previously capable of doing so) without a permit revision, even though the change would be subject to source to different Clean Air Act requirements.
 - **Approved Replicable Methodologies (ARMs)** – An ARM is a replicable protocol placed in a title V permit to facilitate compliance with an applicable requirement in situations that otherwise could require a permit revision. For example, an ARM could specify a replicable testing procedure for updating an emissions factor, rather than requiring a permit revision to accomplish its update. To be approvable, an ARM must deliver replicable results (usually numerical) when operating on the same input data.
- The proposal also included a new “**Green Group**” concept.

Flexible Air Permitting Rule

- NACAA comments.
 - NACAA supports permit flexibility, but the proposal goes too far, particularly with the “Green Groups” concept.
 - Raised questions regarding the legality of portions of the proposal which will allow **unreviewed increases in actual emissions**.
- EPA “finalized” the rule in January, 2009, (minus Green Groups) but did not publish it in the *Federal Register*. Thus, it is not effective and is currently under review.

Reconsideration of Inclusion of Fugitive Emissions

- In December 2008, EPA issued a final rule in response to an industry petition for reconsideration of the Agency's approach for including fugitive emissions in NSR applicability determinations. The final rule requires that fugitive emissions be included in determining whether a physical or operational change results in a major modification *only for sources in industries that have been designated through* rulemaking under section 302(j) of the Clean Air Act. This action changed a 2002 rule which included these emissions in determining whether a physical change at a facility was a major modification and subject to NSR requirements.

Reconsideration of Inclusion of Fugitive Emissions—NACAA Comments

- Strong opposition to the 2008 rule for the following reasons:
 - **Unreviewed actual emissions increases would occur** under this rule.
 - No demonstrated need for the change (sources not on the 302(j) list have been including fugitive emissions in modifications calculations since 1984).
 - Consideration of fugitive emissions increases at facilities is important to protect public health.
 - Segregating fugitive emissions is unjustifiable.
 - Inclusion by EPA of a requirement that state and local agencies address this issue in minor new source review is unreasonable.

Reconsideration of Inclusion of Fugitive Emissions

- On February 17, 2009, EPA received a Petition for Reconsideration and request for a stay from the Natural Resources Defense Council asking the Agency to:
 - Announce that EPA does not intend to require states to submit State Implementation Plan revisions to adopt the Fugitive Emissions Rule, and that states may not implement the Fugitive Emission Rule changes through mere “public announcement” that the state accepts those changes by interpretation;
 - Convene a public notice-and-comment period following reconsideration of the final rule; and
 - Withdraw and abandon the final rule.
- On April 24, 2009 Administrator Jackson granted NRDC’s petition for reconsideration and stayed the effectiveness of the rule for 3 months.

PM-2.5 New Source Review

- 2008 rule specifying SIP requirements for PM-2.5 NSR issues.
- Timing for implementation of the rule:
 - When effective the rule applied immediately:
 - in states where the federal PSD program (40 CFR 52.21) applies (either EPA implements the program directly or has delegated that responsibility to the state); and
 - in nonattainment areas of states, through the ‘transitional’ NSR provisions (contained in Appendix S of 40 CFR part 51) until EPA approves a revised SIP.
 - States with EPA-approved PSD programs, could (but are not required to) continue to use the interim approach of relying on PM-10 as a surrogate for PM-2.5 for up to 3 years or until their revised SIPs are approved, whichever is sooner.

PM-2.5 New Source Review

- This rule does not require states to account for gases that could condense to form particles (called “condensables”) in PM-2.5 emissions limits in PSD or nonattainment NSR permits until January 1, 2011, or a possible earlier date depending on the timing of an upcoming rule for revised test methods for measuring emissions of these condensable particles.
- For nonattainment areas, interpollutant offset trading which will allow reductions in direct PM-2.5 to offset precursor emissions increases, emissions reductions of one precursor to offset emissions increases of another precursor, and reductions in precursor emissions to offset direct PM-2.5 emissions increases.

PM-2.5 New Source Review

- EPA took three separate actions to implement the PM-2.5 standards:
 - On April 25, 2007, EPA promulgated final rule on SIP related provisions.
 - On May 16, 2008, EPA promulgated final rule on NSR provisions.
 - On September 21, 2007 EPA proposed a rule on increments, significant impact levels (SIL) and significant monitoring concentrations (SMC).
- Values of increments, SILs and SMCs are not known in absence of EPA's final rule.

PM-2.5 New Source Review

Nonattainment Areas

- Appendix S includes all the reforms of 2002; thus the applicability test for modifications is an actual-to-projected actual emissions test, and PALs, etc. are in play.
- The major source threshold is 100 TPY of either direct PM-2.5 or SO₂. NO_x is not treated as a precursor under Appendix S. A new 100 TPY source of SO₂ triggers nonattainment NSR (under Appendix S) for SO₂ as a PM-2.5 precursor in a PM-2.5 Nonattainment area.
- The significant emissions rates for major modifications under PSD and nonattainment NSR are 10 TPY for direct PM-2.5 and 40 TPY for SO₂.

PM-2.5 New Source Review Nonattainment Areas

- Emissions of SO₂ and PM-2.5 are not additive in applicability determinations.
- “Different pollutants, including precursors, are not summed to determine applicability. The thresholds set out in the definitions are applied to each relevant pollutant individually...” (P/28331 of 5/16/08 FR).
- Applicability determinations also do not include condensables until EPA promulgates the test method or January 1, 2011, whichever is earlier.
- Netting is allowed, but not between pollutants.

PM-2.5 New Source Review

Nonattainment Areas

- Interpollutant offsets are allowed at a 40 to 1 ratio between SO₂ and PM-2.5. Under appendix S, a State needs to seek interim approval of SO₂ offset ratios even if EPA ratios are used. Offset ratios are specified for NO_x, but those are not effective until the state revises its SIP and seeks approval by EPA.
- “Use of the preferred ratios is recommended by EPA but not mandatory and we do not intend to preclude opportunity for a local demonstration of trading ratios on a case-by-case basis and public input into that process.” (P/28339 of 5/16/08 FR).
- If States choose to develop their own hierarchies/trading ratios, they will have to substantiate by modeling and/or other technical demonstration of the net air quality benefit for PM-2.5 ambient concentrations, and such a trading program will have to be approved by EPA.” (P/28339 of 5/16/08 FR).

PM-2.5 New Source Review

Nonattainment Areas

- States have three years (until July 15, 2011) to revise their nonattainment SIPs. In those SIPs, NO_x is presumed to be a precursor in addition to SO₂; VOCs and Ammonia are presumed to not be precursors. In the SIP a state may make a case counter to the presumptions and demonstrate that VOC and/or ammonia emissions contribute significantly to ambient air.
- Do not count condensable until EPA promulgates validated test methods for condensable particulate matter (1/1/2011 or the date established in test method rule making, whichever is earlier).
- “States are not prohibited from establishing emissions limits in NSR permits that include the condensable fraction of direct PM-2.5.” (P/28334 of 5/16/08 FR).
- Inclusion of condensable- when (now, at the time EPA proposes the test method or after EPA promulgates the test method), where (applicability and BACT/LAER reviews) and how (reopening title V permits).

PM-2.5 New Source Review

NACAA Comments

- The standard was promulgated by EPA in 1997. We still are in need of emissions factors, test methods, modeling guidance, funding for speciated monitors.
- Major source applicability levels should be 25-50 TPY for areas needing five years or less to attain, and 10-25 TPY for areas needing more than five years. 100 TPY threshold for SO₂ and NO_x precursors supported.
- Increment system recommended for PSD.
- Emissions offsets should be limited— PM-2.5 direct emissions with other PM-2.5 direct emissions and PM-2.5 precursors with the same precursor.

PM-2.5 New Source Review Reconsideration Petition

- On July 15, 2008, Natural Resources Defense Council and the Sierra Club petitioned EPA to reconsider and administratively stay specific parts of this final rule. The Petition objected to four parts of the final rule, including:
 - using the new transition schedule for PSD programs in states with PSD programs that EPA has approved;
 - “grandfathering” permit applications that were complete, before the rule’s July 15, 2008 effective date and that rely on EPA’s PM-10 Surrogate Policy, so as to continue reviewing the permit application using PM-10 emissions as a surrogate for satisfying the new PM-2.5 requirements;
 - allowing states to exclude condensable particulate matter from NSR applicability and emission control requirements until January 1, 2011; and
 - allowing states to use EPA-recommended PM-2.5 precursor trading ratios to offset PM-2.5 emissions increases in PM-2.5 nonattainment areas

PM-2.5 New Source Review Reconsideration Petition

- On January 16, 2009, Administrator Johnson denied the July 2008 petition.
- On February 10, 2009, the same petitioners submitted a second reconsideration request for the same four issues and another request for administrative stay. They also requested reconsideration of then-Administrator Johnson's January 16 denial letter.
- EPA is granting the February 10 petition for reconsideration in order to allow for public comment on each of the four issues raised. The Agency also is administratively staying the grandfathering provision for three months pending reconsideration.
- EPA has indicated its intention to propose repeal of the PM-10 Surrogate Policy.

Ozone Nonattainment Issues

- EPA adopted its 8-hr ozone SIP guidance in 2004. As a part of that guidance, EPA revoked the 1-hr ozone standard and the Subpart 2 NSR requirements for areas designated nonattainment under the 8-hr standard. EPA's NSR guidance for the 8-hr ozone nonattainment areas was issued in 2 parts, both of which were the subject of EPA reconsideration actions.
- In December of 2006, the United States Court of Appeals for the District of Columbia Circuit ruled to “vacate those portions of the 2004 Rule that provide for regulation of eight-hour nonattainment areas under Subpart 1 in lieu of Subpart 2 and those portions of the 2004 Rule that allow backsliding with respect to the measures addressed in Parts VI.C.1 through VI.C.5 of this opinion, and remand the matter to EPA.”

Ozone Nonattainment Issues

- Parts VI.C.1 through VI.C.5 are:
 - New Source Review (tiered requirements based on 1-hr classifications (LAER and offsets)) (control requirements and anti-backsliding)
 - Penalties (Section 185 (a) emissions fees)
 - Milestones (rate of progress)
 - Contingency Plans (for failure to meet rate of progress or attainment)
 - Motor Vehicle Emissions Budgets (conformity determinations)

Additional Issues Being Discussed

- Ethanol Plant emissions cutoff (100 TPY or 250 TPY and inclusion/exclusion of fugitive emissions)
- Greenhouse Gas Emissions and their future consideration in BACT/LAER determinations or New Source Performance Standards
- NSR provisions for Electric Generating Units in possible legislation (CAIR/CAMR, Climate Change)
- Future need for Routine Maintenance, Repair, and Replacement exemption (under an actual-to-future-actual applicability tests, why do you need an RMRR exemption?)
- Need for guidance on applicability calculations