

Clean Air Act Advisory Committee

ICT Waiver Discussion

May 26, 2010

Agenda

- EPA Request
- Statutory Basis
- Existing Regulatory Provision
- 1990s Stakeholder and Rulemaking Proceedings
- Questions for Discussion

EPA Request – Second Question

- Question Has 2 Parts:
 - (1) How can development and permitting of innovative emissions reduction measures, including the promotion of inherently efficient and lower emitting processes and practices for GHGs, be encouraged?
 - (2) How can Innovative Control Technology waiver be used or changed to better promote technology development and application?

Part 2 Is Our Focus In These Slides

Statutory Basis – Section 111(j)

- **“Innovative Technological Systems of Continuous Emission Reduction:”** Based on authority in NSPS §111(j) (Not §165 or §169).
- **What:** Waiver from otherwise applicable § 111 requirement , with EPA determination/approval and consent of relevant State Governor.
- **Who:** Requested by owner/operator.
- **Why:** Encourage use of innovative technological system(s) of continuous emission reduction, that can provide greater reductions than ‘demonstrated technologies.’

Statutory Basis (cont'd)

- **Criteria for Granting: Administrator (with consent of State Governor) determines after notice and public hearing that the proposed system(s) –**
 - (i) Has/Have not been adequately demonstrated;
 - (ii) Will operate effectively *and* has “substantial likelihood” (considering any previous failures to operate effectively or to meet NSPS) of achieving:
 - Greater reduction than would otherwise be required; OR
 - Equivalent reduction at lower cost in terms of energy, economic, or non-air quality environmental impact;
 - O/O demonstrates will not cause/contribute to unreasonable risk to health, welfare, safety in operation, function, or malfunction (considering effects on other pollutants and methods for reducing risk to public health); AND
 - Waiver is consistent with §111(j)(1)C); with respect to how many such waivers can be granted (*next slide*).

How Many Waivers for an “Innovative” Technology? Authority in § 111(j)(1)(C)

- The number of ICT waivers that can be granted for a proposed system of continuous emission reduction:
 - “shall not exceed such number as the Administrator finds necessary to ascertain whether or not such system will achieve ...”
 - effective operation,
 - without unreasonable risk to public health, welfare or safety.

AUTHORIZES THE ADMINISTRATOR TO FIND/DETERMINE NUMBER OF TIMES WAIVER CAN BE GRANTED, FOR EACH ICT.

Statutory Basis -- Summary

- **PSD Authority:** Not in the statute, but was derived from §111(j) and has been in the PSD rules since 1980.
- **Special Terms:** Include terms to assure source won't prevent attainment/maintenance of a NAAQS or otherwise cause or contribute to 'unreasonable risk to public health welfare or safety'.
- **How Many:** Can be for as many waivers as EPA finds necessary to ascertain whether the ICT operates effectively and achieves the reductions without imposing unreasonable risk (*see previous slide*).
- **How Long:** Sooner of success or determination of final failure but no longer than 7 years from waiver grant, OR 4 years from start of operation plus an available extension for "such minimum period as necessary to comply with the [NSPS]" of up to 3 years.
- **Extension, if needed, to include:** schedules for compliance with "otherwise applicable standard" and include measures to minimize emissions.

PSD Waiver--History

- Longstanding, included in the original 1980 PSD rules.
- Elements
 - "Innovative control technology" means any system of air pollution control that
 - has not been adequately demonstrated in practice, but
 - would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or
 - of achieving at least comparable reductions at lower cost in terms of energy, economics, or nonair quality environmental impacts.
 - Limited to attainment areas/PSD.
- 1990 Workshop Manual
 - As a practical matter, if a waiver has been granted to a similar source for the same technology, granting of additional waivers to similar sources is highly unlikely since the subsequent applicants are no longer "innovative."
- *Kamine* Applicability Determination – “No multiple waivers” standard – for a particular system of NO_x control.

1990s Stakeholder/Rulemakings

- Qs about ICT waivers were part of NSR Reform Discussions in the 1990s.
- CAAAC Subcommittee Developed Recommendations to EPA in Light of the Historical Lack of Use of the Waiver Provision.
- Proposed Changes Issued After Reviewing Recommendations on July 23, 1996.

Changes Proposed in 1996

- **New Name:** Undemonstrated Technology or Application (UT/A) Waiver
- **Expanded Scope:** UT/A definition includes undemonstrated pollution prevention techniques.
- **Criteria:**
 - Any system, process, material, or treatment technology that shows substantial likelihood to operate effectively and to achieve
 - Greater continuous reductions of air pollutant emissions than any demonstrated system; OR
 - Comparable emission reductions
 - at lower cost, lower energy input, with lesser non-air environmental impacts, or
 - with other advantages that are defined and mutually agreed on case-specific basis to justify the use of UT/A provisions.

Rule Changes Proposed in 1996

- **Special Terms:** Must contain reference emission control performance objective of the UT/A and the otherwise applicable BACT or LAER standard.
- **How Long:** 2 years from startup or 5 years from permit issuance (CAAAC recommended 4 and 7 years, respectively).
- **Consequences of Failure:** Distinguishes based on degree of failure. Permit must define and include emission limits for two modes:
 - Marginal Failure Emission Limit and Gross Failure Emission Limit – Gross limit enforceable.
 - Gross failure requires either replace or retrofit, on an expeditious schedule, such that the source achieves BACT or LAER within 18 months.
 - Permit would include: (1) ID potential failure modes, (2) projections of corresponding emissions increases expected, (3) corresponding emission increases as marginal or gross failures, and (4) ID of potential contingency measures, short- and long-term, to reduce or mitigate increases in event of worse-than-expected emissions during the term of the UT/A waiver.

This Proposal Was Not Finalized With the 2002 Reforms

EPA Solicited Comment on Incentives

- Recognizing that a very limited number of PSD ICT waivers have been requested or approved since 1980, CAAAC offered 3 options:
 - Allow a source to use, bank, or trade the portion of emission offsets of a nonattainment pollutant that becomes surplus when the UT/A achieves greater emission reductions than originally anticipated;
 - Allow the permitting authority, on a case-by-case basis, in conjunction with the source and subject to public review, to agree on values of either mass emission reduction credits or emission impact reductions in PSD areas in the UT/A permit;
 - Limit the benefit accruing to the UT/A source to protection from enforcement of the initial, presumably more stringent, UT/A emission limit during the life of the UT/A waiver.

Questions for EPA

- Can we pull the public comments on this proposal?
- What has the experience with the UT/A waiver been since 1996?
- Does EPA agree there is flexibility in existing statutory authority that is not reflected in the 1990 Workshop Manual or the applicability determination issued in the early 1990s regarding number of waivers and other issues?
- Does that additional flexibility, if exercised, need to be limited to GHG ICTs?
 - If so, why? And, how would it be structured?

Questions for CAAAC Discussion

- What would it take to encourage companies to use the ICT provision, recognizing that the provision is voluntary for the owner/operator?
 - Are there other methods to “share the risk” between O/O, states, and EPA?
- What qualifies a control technology as “innovative”?
 - Definition indicates *either better performance* on pollutant of concern or ***comparable performance (not necessarily equivalent)*** with lower costs
 - economic, environmental, energy ...
 - Stepwise improvement with application?
 - Other?
- What is the right length of time for waivers? Full 7 years? What is the feeling about the 1996 proposal?
 - Would it help encourage risk taking?
 - Does it provide appropriate sharing of the risk?
- What are the options for proceeding?
 - Finalize 1996 Proposal?
 - Issue GHG technology-specific guidance under the existing regulatory language?
 - To ensure transparency, does guidance require notice and comment? And, if so, what benefits would guidance offer over a rulemaking?
 - Other?