

**Phase II Report
of the Climate Change Work
Group of the Permits, New Source
Review and Toxics Subcommittee**

**October 5-6, 2010
Clean Air Act Advisory Committee**

Phase II Charter

1. How can the best available control technology (BACT) process be used to encourage the development of energy efficient processes and technologies?
2. How can the development and permitting of innovative emissions reduction measures, including the promotion of inherently efficient and lower emitting processes and practices for greenhouse gases (GHGs), be encouraged? How can the Innovative Control Technology (ICT) waiver be used or changed to better promote technology development and application?

Energy Efficient Processes and Technologies (EEPT)

- Work Group members had different views as to whether application of PSD and BACT to GHGs will encourage or discourage application of EEPTs.
- Putting those differences aside, Work Group focused attention on how EEPTs may be incorporated into the BACT process and on changes that can be made to existing policies to better promote promising new technologies offering reductions in GHGs.
- The Work Group focused on each step in the top-down BACT process and identified considerations a permit applicant and writer would likely need to address regarding the application of EEPTs to arrive at what constitutes BACT.

Energy Efficient Processes and Technologies (EEPT) – Cont'd

- Investigated and provided guidance for incorporating EEPTs into top-down BACT :
 - *New Emissions Unit at Existing Facility*
 - *Modification to Existing Unit*
 - *Replacement Unit*
 - *Greenfield Facility*
- Assessed policy implications of performing top-down energy efficiency analysis at varying levels: Equipment; Production; Facility
 - Questions Asked:
 - When might each level of analysis be appropriate?
 - Is the appropriate level of analysis the same for all industries?
 - To the extent discretion exists regarding level of analysis, what might be the implications of a narrow or broad level of analysis?
 - General Implications:
 - Existing energy efficiency benchmarks provide suggestions regarding available technologies and processes for reducing GHG emissions
 - Energy efficiency may require careful management
 - Levels of analysis beyond the equipment level are useful where a source seeks to “net out” of PSD applicability
 - GHG reductions achieved by reducing use of grid-delivered electricity may be challenging to quantify, but EPA provides guidance for doing so
- Recommendations
 - EPA should provide guidance based on the framework presented here about how to incorporate EEPTs into the top-down BACT process. (“Guidance” refers to the plain meaning of the term and is not intended to refer to a legal process or form.)
 - EPA should update the Office of Research and Development GHG mitigation database to incorporate information on EEPTs including information on relevant benchmarks.

Encouraging Inherently Efficient and Lower Emitting Processes and Practices for GHGs

- Most of the Work Group's effort was spent focusing on the ICT waiver which exists in the current PSD program regulations.
 - Statutory Authority for the Waiver
 - Regulatory Provisions
 - the PSD BACT Waiver Experience with the BACT Waiver Provisions to Date
 - The Kamine Memo
 - NJ Logan Generating
 - Proposed changes in the 1996 NSR reform package
- Work Group discussions:
 - The very limited availability of the waiver for a given technology and application under current EPA policy;
 - The time frame within which the owner/operator has to meet the BACT limit under any waiver; and,
 - The degree of risk borne by the applicant relying on a new or innovative technology to achieve an emissions limit, should the technology fail and an entirely different control technology be required.

Encouraging Inherently Efficient and Lower Emitting Processes and Practices for GHGs – Cont'd

- Recommendations:
 - EPA should encourage use of innovative control technologies for GHGs authorizing waivers for innovative technological systems of continuous emission reduction.
 - EPA should disavow its policy set out in the *Kamine* Memorandum
 - EPA should formally and publicly state its views about the availability of the waiver
 - EPA should reevaluate the appropriate maximum waiver length
 - EPA should support States in their efforts to promote new and innovative technologies or techniques for GHG reductions by expressly allowing permits to specify a range of emissions limits that constitute BACT for that particular application of the new or innovative technology
 - EPA should commit to:
 - Work expeditiously with permitting authorities that wish to issue permits including BACT limits based on new or innovative technologies (using the waiver provisions as needed)
 - Take steps to foster information sharing about cases in which permitting authorities use the flexibility under existing law to encourage new and innovative technologies