

## Needs of States and Stakeholders

**Background:** On December 7, 2009, the Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)--in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed greenhouse gas emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration on September 15, 2009. It is anticipated that EPA will finalize the greenhouse gas emission standards for light-duty vehicles in March, 2010. Once these emissions standards are finalized, the six greenhouse gases will be recognized as air pollutants regulated under the Act and at some time thereafter subject to regulation under the Prevention of Significant Deterioration (PSD) rules. Under the PSD rule, sources will be subject to the requirement to install Best Available Control Technology (BACT) on new or modified major sources of GHG emissions. Thus, state and local permitting agencies will be making BACT determinations at some point in mid-2010. The purpose of this document is to identify the state and local agency data and guidance needs and to make recommendations on how these needs can be met.

**Assumptions:** It is assumed that state and local agencies will use their existing SIP approved processes for reviewing PSD applications and determining BACT for GHGs. The Work Group does not envision a new BACT determination process for GHGs. The predominant method for determining BACT is EPA's "top-down-BACT" process, but there are some states (Texas is at least one such state) that have an alternate process in their approved SIP.

Permitting agencies will initially use technology information provided by EPA (and over time other permitting authorities) in their analyses but they will also maintain discretion to weigh environmental factors (such as local air quality) in their BACT analyses. For example, if NO<sub>x</sub> is important to the State because it is in an ozone or NO<sub>2</sub> non-attainment area, a permitting authority may choose in the BACT energy, environment, and cost consideration criteria for technology selection a technology for GHGs that does not result in increased NO<sub>x</sub> emissions.

In the proposed Tailoring Rule, EPA has proposed to set the major threshold cutoff at an emissions level higher than the 100/250 TPY major source emissions levels stated in the Act

and/or to extend the applicability date to allow permitting agencies to prepare to process then new permits. State and local permitting agencies do not have the resources to deal with GHG BACT determinations for permits at the current major source emissions levels of 100/250 TPY and will need assistance to implement the rule initially at the higher threshold levels.

With this all as background, the following questions are identified and answered.

**1. What are the States' Technical Information and Data Needs for GHGs Control and Mitigation Measures?**

**Discussion:** Many state/local agency permittees have stated they simply do not know where to begin when considering BACT for greenhouse gas determinations. As determinations are made and documented in permits, there will be a body of information available thru the RACT/BACT/LAER clearinghouse. But, until there are determinations entered, the need for proactive action by EPA is great. The Work Group suggests that EPA staff seek GHG control data and examples, enter these in the ORD GHG Mitigation Database and communicate information on GHG controls on a regular basis with permittees, consultants, and industry.

**Official EPA guidance is needed to provide for consistency across the nation as initial BACT determinations are made. Specific guidance needs are identified and this list will be expanded as the process develops.**

**There are varying opinions regarding the role of New Source Performance Standards for greenhouse gases. Some Work Group members are calling on EPA to promulgate standards, but others feel the NSPS process is not an appropriate tool for control of GHG emissions.**

**A. Timely Communication Regarding and Access to State BACT Determinations.**

**i.** Communication on GHG control measures must be timely and widespread. The Work Group recommends a periodic GHG control measures newsletter be coordinated by EPA (ORD and OAQPS staff working together) and distributed to the permitting agencies (state, local, and regional offices) and other interested parties (industries, trade groups, environmental organizations, etc).

**ii.** Permit decisions with adequate documentation must be proactively sought by EPA and made available to all stakeholders. Each permitting authority should communicate closely with its EPA Regional office regarding permit applications, issued permits, and identified issues. EPA should establish a system to follow up on issued permits, because it is important to document actual experiences.

**iii.** The EPA RACT/BACT/LAER Clearinghouse and the EPA ORD GHG mitigation database must be readily accessible, timely, complete, and adequately funded and staffed. The Work Group recommends that the ORD database serve as a primary

resource for data on source categories, with the RACT/BACT/LAER Clearinghouse remaining as the primary database documenting State and local permits. EPA is urged to work with stakeholders regarding operation of these databases.

iv. Identification of source categories that will be subject to BACT determinations for GHGs is essential. Communication among EPA, State and local agencies, the regulated community and other stakeholders is vital, especially during the years 2010 and 2011.

## **B. Guidance**

i. EPA should provide guidance on the appropriate methods and formulas for the calculation of costs of GHG controls. EPA should document control cost calculations and share this information with interested parties through the databases.

ii. Some Work Group members recommend EPA develop a list of the largest industrial GHG emitters and consistent with Clean Air Act Section 111 promulgate New Source Performance Standards (NSPS) for those categories. Such standards would provide a floor for BACT determinations and also provide some level of control for sources legally avoiding BACT through netting. Additional resources should be provided to permitting authorities to implement the standards for existing sources.

Other Work Group members expressed the view that the NSPS program is not an appropriate tool for regulating GHGs.

iii. EPA should provide guidance on the following approaches/technologies for GHG reductions:

- a. pollution prevention measures;
- b. efficiency improving technologies for both new and existing industry sectors;
- c. emissions factors (so that common baselines are used in assessing technologies);
- d. fugitive emissions factors and controls;
- e. bio fuel effects on greenhouse gas emissions;
- f. monitoring requirements, averaging times, and compliance test methods;
- g. acceptable control techniques for GHGs other than CO<sub>2</sub>; and
- h. ranking of GHGs with regard to climate change impact, such that the issue of pollutant substitution/tradeoff can be considered.

## **2. What steps can be taken to expedite, streamline or provide additional certainty in the BACT process?**

**Discussion:** The Work Group does not envision or recommend a new process for determining BACT for GHGs, but does see a need for examples, presumptions, and models. The BACT process will remain case-by-case; but for many industry sectors, reference and benchmark points are needed. Communication among all parties—EPA, states/locals, regional offices, consultants, and industry is essential. Training should be a major priority.

The Work Group considered the concept of Presumptive BACT for GHG emissions sources, but did not arrive at consensus. The Work Group recommends this topic be considered further in phase two deliberations.

**A. Use Existing BACT Determination Process:** While noting the Work Group's disagreement over the scope of BACT review, the Work Group was in consensus that State and local air pollution control agencies use their existing EPA approved process for determining BACT, such that they are not creating a new process for GHGs. The process for determination of BACT under PSD for GHGs must be very clearly defined and communicated and must be legally reliable.

**B. BACT Guidance:** EPA should provide compilations of model or example permits for key source categories, separate from the clearinghouses/databases discussed above. EPA should make it clear that any example permit is viewed as a starting point for the permitting authority BACT determination process, not a presumed end point. Permitting authorities must still follow their approved process for determining BACT. Note: there was not a consensus on the concept of presumptive BACT. The Work Group has proposed to consider this in its second phase of deliberations.

**C. Netting for GHGs Under PSD Rules:** EPA should provide guidance regarding the procedure for netting out GHG emissions for PSD applicability purposes.

**D. Training is an essential need.** EPA should offer training to permitting agencies, the regulated community and other stakeholders (perhaps in separate training sessions for permitting authorities versus that for other stakeholders) on BACT related topics including, but not limited to, preparing the permit applications, source operations and demonstrated energy efficiency improvement techniques for various industry sectors.