UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

JUL 28 1987

Mr. Richard E. Grusnick
Chief
Air Division
Alabama Department of Environmental Management
1751 Federal Drive
Montgomery, Alabama 36130

Dear Mr. Grusnick:

This is in response to your June 19, 1987, letter concerning best available control technology (BACT) determinations. The issues you raise highlight perhaps the most crucial aspects of BACT determinations, and I hope that the following responds adequately to them.

The first issue you raised concerns the role of new source performance standards (NSPS) in BACT determinations. The NSPS are established after long and careful consideration of a standard that can be reasonably achieved by new source anywhere in the nation. This means that even a very recent NSPS does not represent the best technology available; it instead represents the best technology available nationwide, regardless of climate, water availability, and many other highly variable case-specific factors. The NSPS is the least common denominator and must be met; there are no variances. The BACT requirement, on the other hand, is the greatest degree of emissions control that can be achieved at a specific source and accounts for site-specific variables on a case-by-case basis.

Since an applicable NSPS must always be met, it provides a legal "floor" for the BACT, which cannot be less stringent. A BACT determination should nearly always be more stringent than the NSPS because the NSPS establishes what every source can achieve, not the best that a source could do. In only a few BACT cases should you encounter the same criteria that limited the stringency of the NSPS, so BACT should usually be more stringent than the NSPS.

States, as you pointed out, don't always have the technical expertise that is available to EPA. For that reason, the BACT determination process best for many agencies is that which is currently used by many State/local permit agencies. This process consists of requiring the source to either use the most stringent control technology or to show in detail why it cannot. The BACT/LAER [SEE FOOTNOTE *] Clearinghouse is often used to find the most stringent control technology, as are calls to experienced permit review

[FOOTNOTE *] lowest achievable emission rate

engineers in other States, discussions with control equipment manufacturers, and reviews of literature such as the McIlvaine newsletter. This approach was alluded to by the EPA Administrator in the recent H-Power remand (copy enclosed) where it states that "substantial and unique factors must be shown to justify a less efficient control technology." For additional detail on this approach, contact Wayne Blackard, Chief, New Source Section, EPA, Region IX, 215 Fremont Street, San Francisco, California 94105, (415) 974-8249.

The second issue involves the relationship between BACT and air quality impacts. The application of BACT is a specific requirement for a prevention of significant deterioration (PSD) permit that stands alone in the sense that, as a minimum, a PSD source must install BACT regardless of the air quality impact. In other words, BACT is BACT, even if the source would only consume 5 percent of the available increment. I certainly did not mean to imply that EPA "decides" how much increment a source can have; EPA does, however, have oversight responsibilities in BACT decisions. In your example, EPA would not deny a permit to a source consuming 95 percent of the increment provided all else was acceptable, including the BACT determination. However, modeled violations of a national ambient air quality standard or PSD increment may drive a BACT determination to a greater level of control. What we would deny is a permit for a source where a BACT determination was "relaxed" (or even no control at all was required) simply because the source did not consume all of the increment.

Other aspects of the environmental impact of the BACT decision occur when a control option increases the emissions of one pollutant while reducing emissions of another, or a control option may produce an environmentally harmful byproduct. For example, the use of water injection in controlling nitrogen oxides from gas turbines will increase carbon monoxide emissions.

In summary, section 169 of the Clean Air Act defines BACT as "based on the maximum degree of reduction . . . on a case-by-case basis." Consequently, BACT represents the best level of control the source can provide and should not be based on a category-wide minimal standard like an applicable NSPS.

Sincerely,

Gary McCutchen
Chief
New Source Review Section

1 Enclosure

cc: Bruce Miller