

Compliance with Constantly Changing Regulations or How I Became the Way I Am

Major Points of the conference opening talk included:

Lower emission levels from combustion devices are driven by two major forces:

- Equipment vendors improving their technologies to be recognized as the Best Available Control Technology (BACT)
- Project developers needing to reduce their daily or annual emissions to avoid (or reduce required) offsets

BACT must be a technology demonstrated in practice (typically for 6 months on a similar (loosely defined) unit – once again proving size is not important).

When BACT is being determined for a new piece of equipment, a cost effectiveness factor is considered. That is, the cost of a technology in dollars – per – ton – of – pollutant – reduced is established. If the value is above an established threshold limit (which varies significantly from state to state and even within some states) the particular technology is not required to be used.

Fuel, natural gas, for example, can be considered BACT.

In non-attainment (with Federal Clean Standards) areas, technology which qualifies as Lowest Achievable Emissions Rate (LAER) must be used. For LAER there is no consideration of cost effectiveness; a technology achieving the lowest emission rate must be used regardless of its cost.

A project seeking a permit is subject to LAER up to the day the permit is issued. That is, assume one files for a permit for a boiler using what is currently considered LAER. If two days before the permit is issued, a new, much more expensive technology is declared (by EPA) LAER, it must be used on the boiler.

BACT and LAER are limits expressed in terms of parts per million or pounds per million BTU of heat input, not as pounds per hour or as a percentage of pollutant reduced.

The following tables show existing levels of emissions and the technologies used to achieve them as well as some levels being achieved but not fully recognized yet as LAER.