

June 1, 1999

Mr. Magdy Badr
California Energy Commission
1516 9th Street
Sacramento, CA 95758

Dear Mr. Badr,

Thank you for bringing to our attention a claim before the CARB that Engelhard's oxidation catalyst contributes to the generation of particulate matter. The empirical and scientific evidence is clear that CO oxidation catalysts do not contribute to increased levels of particulate matter from natural gas fired turbines. We regret that any information Engelhard may have provided was used to make such a claim, and Engelhard does not support any claim to this effect.

I have attached a complete list of Engelhard's CO oxidation catalyst installations for controlling CO emissions from gas turbine emissions. These installations include many that have an SCR system installed downstream of the oxidation catalyst. In every one of these installations, there are proven and verifiable reductions of many thousands of tons of CO emissions every year. These reductions are monitored using CEMs to verify that the reductions claimed in the permit are achieved. Engelhard is not aware of any client claims or emissions data at any of these installations that indicate that the CO catalyst increases particulate emissions. Source tests generally indicate that PM10 concentrations are very low, typically ranging from 0.001 to 0.0001 gr/dscf. These concentrations are much lower than those that would arise from the conversion of fuel sulfur in the range of 0.2 to 1 gr/100 scf to sulfate particulate. In most, if not all, of these installations the customers have claimed that the emissions from the stack are cleaner than the ambient air at the gas turbine intake. This is especially true when SCR is included in the emissions abatement package. This cannot be claimed for installations without a CO oxidation catalyst.