



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESEARCH AND DEVELOPMENT
NATIONAL RISK MANAGEMENT RESEARCH LABORATORY
Air Pollution Prevention and Control Division
109 TW Alexander Drive, RTP, NC 27711

May 30, 2014

Dr. Daman Walia
President/CEO
ARCTECH, Inc.
14100 Park Meadow Drive
Chantilly, Virginia 20151

Subject: MicGAS Technology of Microbial Approach of Using Coal

Dear Dr. Walia:

We have reviewed the recent information you sent us. Clearly, you and your team have worked diligently and made major strides in developing this innovative MicGAS technology of microbial approach of using coal. If this technology is successfully commercialized, it offers the potential of utilizing coal to generate a number of valuable products for energy and non-energy uses. We agree that it has the potential to yield a smaller environment footprint than conventional approaches of coal use and a creative and value generation approach for mitigation of emissions of carbon. We note the progress you have made toward the potential use currently unmineable coal deposits to generate valuable products. This would have the advantage of avoiding the safety and environmental problems associated with coal mining, while at the same time making available a previously unusable energy source. In a previous message to you, we identified issues we believe would need to be resolved to facilitate the widespread use of your technology.

As I concluded in the book I edited, dealing with the climate change mitigation challenge (1), "*... an aggressive, cost effective mitigation program relying on existing technologies is capable of mitigating only between about 25% and 45% of the required CO₂, depending on projected business as usual CO₂ growth rates. Therefore, in the absence of fundamental lifestyle changes, new technologies are required for the key energy-related sectors: power generation, transportation, industrial production, and buildings.*" Therefore, it is my view that we need aggressive development of potentially transformative technologies such as yours if we are to protect the planet from potentially catastrophic climate change impacts.

As we discussed with you earlier, the EPA does not have funding to allow for development of advanced fossil fuel technologies such as MicGAS. Therefore, we are not in a position to fund any research on this technology. At the EPA, we will be willing to support you in further evaluations as you make progress towards its advancement.

I wish you well as you work toward identifying the resources needed for the R, D&D necessary to achieve your goal of a commercially viable, low carbon coal conversion technology.

Sincerely,

Frank T. Princiotta, Director
Air Pollution Prevention and Control Division

(1) Princiotta, F. 2011. Global climate change – The technology challenge. *Global Climate Change - the Technology Challenge*. Ed. F. Princiotta. Springer Publications. Pp.1-50.