DAVIS L. FORD & ASSOCIATES
Consulting Environmental Engineers

3300 Bee Cave Rd.
Ste. 650 - #1310
Austin, Texas 78746

From the office of:

DAVIS L. FORD, Ph.D.
Registered Professional Engineer
Diplomate - American Academy of
Environmental Engineers

Tele: 512/327-6599
Fax: 512/327-6408
E-mail: dfordphd@aol.com
Web Site: davislford.com

New Mexico office:
Tele: 505/377-3269
Fax: 505/377-3291

January 25, 2011

Dear E3 Awards Committee Members,

This letter is written in support of the research by Dr. Carl E. Adams, Jr., and the ENVIRON team on VOC BioTreat™. I understand this research project is being submitted for your review and I would like to share my point of view with you.

I have spent my career, much like Dr. Adams, working in and consulting for the field of industrial wastewater. I am a practicing environmental engineer with over forty-eight years of experience in the field. I am on the faculty at The University of Texas at Austin as an adjunct professor and have published more than one hundred technical papers and co-authored or contributed to ten textbooks.

I have reviewed the information related to the VOC BioTreat solution as it was presented to Marathon Petroleum Company for the Garyville refinery. In my opinion, this is a solution that will help change the way refineries eliminate VOCs, and I suspect any new facilities will begin to incorporate Dr. Adams' solutions into their physical plant layout. I base this on earlier experience with the Alaska Pipeline terminal in Valdez doing extensive testing of the tracking of the percentage of benzene and associated chemicals (xylene, toluene, ethylbenzene) which are biodegraded or air stripped using a mass balance controlled experimental apparatus.

We know certain things to be true. We know that activated carbon and incineration, while applicable in certain configurations, have many environmental control limitations and have a limited capacity to achieve required reduction in VOCs. We know that biomass in deep tanks with diffused aeration creates a controlled and measurable approach to maximize the reduction of hazardous constituents and by-products. Under the scrutiny of EPA and the endorsement of the Louisiana DEQ, this linkage with the external columns has a technological breakthrough potential which is needed in our profession.

What Dr. Adams has been able to do is to link what we know with an external core column invention. The result will be as successful as has been his other patented invention, the AIS System. Our colleague, Dr. Lial Tischler, and I have observed the outstanding AIS Treatment System's efficiency and flexibility while in operation at one of the largest petrochemical complexes in the world at Mailaio, Taiwan. This AIS System is considered a "State of the Art" wastewater system by the owner of Formosa Plastics Group, which is the second largest chemical company in the world, and needless to say, a very sophisticated and technologically demanding organization.

I am honored to submit this letter in support of Dr. Carl Adams and ENVIRON based on my long-term appreciation of Dr. Adams' career. He is one of the most outstanding and creative individuals I have ever known. His work around the world in the field of environmental engineering is a hallmark for his colleagues, both in terms of his energy, technical curiosity, and creativity and his practical and innovative approaches to difficult problems. The applicability of the external core column invention with VOC biochemical treatment of VOCs, in my opinion, will be a gateway to successful treatment of these volatile organic compounds.

Respectfully submitted,

Davis L. Ford

Davis L. Ford, PhD, PE, DEE
Past President
American Academy of Environmental Engineers