



Melvin S. Finstein, Ph.D.  
U.S.A. Representative

06 January 2005

Ms. Rosari Marin, Chair  
CIWMB  
1001 I Street, P.O. Box 4025  
Sacramento, CA 95814

Re: Discussion of  
“Conversion Technologies  
Draft Report to the Legislature  
February 2005”

Dear Ms. Marin:

I submit my Discussion of the above Draft Report “wearing two hats.” One is as the representative of an anaerobic digestion conversion technology for municipal solid waste, the ArrowBio Process, currently being considered by several California jurisdictions. The other hat is that of a Professor Emeritus of Environmental Science (Rutgers, the State University of New Jersey) known for his critical, demanding, approach to solid waste technologies. The two hats are perfectly complimentary.

On behalf of ArrowBio I responded to the University of California questionnaire that contributed to the development of the Draft Report. My Discussion concerns solely anaerobic digestion.

Anaerobic digestion technologies can be divided into two classes: “high solids” or “dry,” and “watery.” These designations describe the respective facilities throughout (separation of the non-biodegradable and the biodegradable organic fractions, and conversion of the latter to methane). The Draft Report concerns exclusively “dry” systems originating in Europe, and focuses on three of them to illustrate non-fundamental differences among members of the class. The “watery” class currently consists of only one commercially available technology, the ArrowBio Process. It originates in Israel.

Differences between the “watery” and “dry” classes, at the physical and microbiological levels, are fundamental. They translate into discrepancies in terms of diversion from the landfill and recovery of material and energy resources. Yet the Draft gives the impression that “high solids/dry” systems are the only option. A related flaw is that digestion per se is treated, unrealistically, in isolation from separation and other functions. In effect, ArrowBio is penalized for being a highly integrated anaerobic digestion system. This does not serve the interests of California.

This cover letter can only deal in generalities. Specifics are left for the accompanying document. Additionally, I have mailed you a CD which includes a four-minute audio/video presentation of the development and operation of the ArrowBio Process.

I would be pleased to answer any question about my Comment, and hope the anaerobic digestion aspect of the Draft Report can be corrected in time for presentation to the Legislature.

Sincerely,

Melvin S. Finstein

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