



January 10, 2005

Michael Paparian
Committee Chair
California Integrated Waste Management Board
1001 I Street
Sacramento, CA 95812-4025

Dear Mr. Paparian and Members,

The Draft Conversion Technologies Report continues to make progress, but it needs further revision before it's ready for submittal to the Legislature. Lack of emissions testing information and what I think is an unsubstantiated bias in the report for biochemical conversion are two critical problems with the present draft.

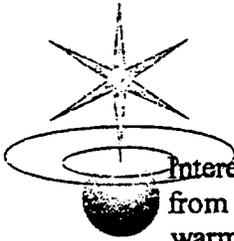
I would like to offer the CIWMB information I obtained on a recent fact finding trip to Germany that I believe is relevant to your deliberations over the Draft Report. I visited four gasification and/or pyrolysis facilities and an anaerobic digester (AD) system on this trip. I also met with the Brandenburg EPA solid waste and air quality regulators, and an advisor to the German Green Party on waste, recycling and energy issues to get their perspectives on the air emissions issue related to conversion technologies.

I learned from these meetings that the German EPA regulates conversion technologies and all other technologies under the air emission standards of the 17th German Federal Emissions Control Act. German regulators and technology vendors were astounded to learn that in California we have a zero emissions standard for gasification. The head of solid waste for the Brandenburg State, Dr. Bukard Knippenberg head of solid waste for the state of Brandenburg, stated that, "there is no such thing as zero emissions." In his words, "we set the standards without preference for any technology."

Both technology vendors and regulators cited data about emissions from existing gasification and pyrolysis systems that demonstrate both their permitability and their ability to meet the most stringent emissions concerns. This data is available from Germany. I understand data from Japan supports the German emissions experience with thermochemical conversion.

In contrast to our artificially contorted and unscientific approach to technologies like gasification, the German system is logical and science based. It treats each technology impartially by requiring that any facility be in compliance with the 17th German Federal Emissions Control Act and EU standards. The technology either meets the law or it isn't permitted.

I have provided information and contacts for emissions data from those I met with to the CIWMB staff. I hope that this UC research team will move quickly to obtain and analyze this information and incorporate it in the study.



Interestingly, Germany and Europe are far more concerned about stemming emissions from landfill-particularly methane because of its greenhouse gas contribution to global warming than they are about emissions from the conversion technologies. They consider emissions from conversion technologies to be a minor problem in comparison with greenhouse gas emissions from land fills.

In fact the Green Party has concluded that using residual materials from material recovery facilities (MRFs) as fuel substitutes for coal and other fossil fuels is definitely preferable to land filling from an overall environmental impact standpoint. This position, broadly embraced in Germany, was arrived at after an analysis of the relative risk landfills represent over what emissions are generated from converting fuels derived from urban wastes to energy. This perspective is particularly relevant from a country that prompted the European Packaging Directive and is considered a world wide leader in waste prevention, recycling and composting.

Regarding the Report's claim on page 9 that "that anaerobic digestion may be the cleanest and least polluting technology when compared with to other conversion technologies", I take exception to this statement. Although I'm very much in support of AD technologies there is no evidence presented in the Report on a comparative basis to support this claim. There are no emissions data provided in the Report on the power generating phase of AD systems, nor are there any in-depth discussions of potential environmental impacts from sludges or field applications of product produced by these systems. For these reasons alone the Draft Report's claim that AD systems are environmentally superior to thermochemical systems cannot be made.

With additional data on emissions from the German experience and from Japan, and the removal of the unsubstantiated bias in the report favoring AD technologies over thermochemical conversion, the Report will provide the scientifically objective assessment of conversion technologies that AB 2770 called for.

The CIWMB should then assume a leadership role in making sure that the scientifically unsupportable definitions in AB 2770 governing thermochemical conversion technologies be removed this legislative session. Then California can join Europe and Japan in addressing the all important global warming issues resulting from 39 million tons of solid waste being land filled each year.

Sincerely,

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