



**WASTE MANAGEMENT**

915 L Street  
Suite 1430  
Sacramento, CA 95814  
(916) 448-4675  
(916) 448-2470 Fax

February 15, 2005

Fernando Berton  
California Integrated Waste Management Board  
1001 I Street  
P.O. Box 4025, MS 14  
Sacramento, CA 95812-4025

*Via E-mail: [fberton@ciwmb.ca.gov](mailto:fberton@ciwmb.ca.gov)*

**SUBJECT: CONVERSION TECHNOLOGY REPORT TO THE LEGISLATURE**

Dear Mr. Berton:

Thank you for the opportunity to provide written comments on the draft CIWMB report, "Conversion Technologies – Report to the Legislature" dated February 2005 (Draft Report). The report does an excellent job of describing many of the issues facing the practical and beneficial development of conversion technologies in California. Of particular importance is the manner in which the statutory and regulatory framework in California will be configured to accommodate these new emerging technologies. The report makes a number of important observations and recommendations that will be helpful in framing future debate on these issues.

However, we are primarily concerned at this time about the impact that the language of the proposed report may have on the application of these technologies today within the *existing* legislative and regulatory framework in two key areas:

1. How the current regulatory exemption process (i.e., 3-part test) affects the application of these types of technologies on already separated materials, and
2. The current regulatory status of anaerobic digestion and acid hydrolysis technologies as forms of composting technology fully eligible to receive diversion credit under AB 939.

***Already Separated Materials and The Three-Part Test***

Unfortunately, the Draft Report makes no mention of the fact that all of these technologies may be applied today on separated materials that are being recycled for energy recovery after the feedstock materials have passed the 3-part test in regulations adopted by the CIWMB. The regulatory provisions adopted by the board are derived, in part, from the definition of "Recycling" in PRC 40180 and the definition of "Transfer or Processing Station" in PRC 40200:

40180. "Recycle" or "recycling" means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to

be used in the marketplace. "Recycling" does not include transformation, as defined in Section 40201.

40200. (a) "Transfer or processing station" or "station" includes those facilities utilized to receive solid wastes, temporarily store, separate, convert, or otherwise process the materials in the solid wastes, or to transfer the solid wastes directly from smaller to larger vehicles for transport, and those facilities utilized for transformation.

(b) "Transfer or processing station" or "station" does not include any of the following:

(1) A facility, whose principal function is to receive, store, separate, convert, or otherwise process in accordance with state minimum standards, manure.

(2) *A facility, whose principal function is to receive, store, convert, or otherwise process wastes which have already been separated for reuse and are not intended for disposal. (italics added)*

(3) The operations premises of a duly licensed solid waste handling operator who receives, stores, transfers, or otherwise processes wastes as an activity incidental to the conduct of a refuse collection and disposal business in accordance with regulations adopted pursuant to Section 43309.

Clearly, the use of transformation technology to directly collect, sort, cleanse, treat or reconstitute materials that would otherwise become solid waste is not allowed under PRC 40180 as a form of "recycling". But, if other permitted separation technologies are used to collect, sort, cleanse, treat or reconstitute materials that would otherwise become solid waste to make a feedstock that meets the standards of the marketplace, there is no reason why these types of energy or fuel producing technologies could not accept that feedstock as an industrial process exempt from solid waste regulations – just as it would any other similar raw material feedstock.

In fact, we believe that is just what the CIWMB has done in the adoption of the 3-part test in 14 CCR 17402.5 (d) for the definition of "Recycling Center". Once a waste material has been processed such that it passes the 3-part test, it is no longer regulated as a solid waste – it becomes an exempt recyclable material:

1. Recyclable materials have been separated prior to receipt,
2. The residual amount of solid waste in the separated for reuse material shall be less than 10% of the amount of separated for reuse material received at the facility, and
3. The amount of putrescible waste in the separated for reuse material shall be less than 1% of the separated for reuse material received by weight.

Thus, we believe that an energy or fuel producing technology that receives only materials that pass the 3-part test is not regulated as a solid waste facility. Rather, such an operation would be regulated as an exempt Recycling Center. The technology used to convert the separated material would not be regulated as a solid waste processing facility but would be regulated as any other

similar industrial or manufacturing activity using an industrial feedstock in accordance with the laws of the state.

We request that the Final Report on Conversion Technologies clearly consider and address the processing of solid waste to produce a feedstock in accordance with the 3-part test and that such Recycling Center facilities are no longer subject to solid waste regulation – under existing law – and no further regulatory or statutory change is necessary to allow such operations. The only issue that might require further clarification is the issue of whether separated putrescible wastes with less than 10% residual could be used as a manufacturing or industrial feedstock. We recommend that the final report contain an additional recommendation along the lines of the following language:

5. Separated materials that pass the current 3-part test adopted by the Board are no longer regulated as solid wastes. Thus, these materials are eligible to be utilized as feedstock in industrial or manufacturing processes that may utilize thermochemical or biochemical conversion technologies to produce fuel or energy – and these separated materials are eligible for diversion credit under existing law (except for less than 10% residuals that still may require disposal). However, there are certain high fuel value waste materials that can be separated from the waste stream and produce low residual waste, but which are putrescible or semi-putrescible if not properly managed. Consideration should be given to amending current regulations to allow diversion credit for separated high fuel value materials that are similar in nature to putrescible raw materials.

### ***Anaerobic Digestion and Acid Hydrolysis Are Forms of Composting***

Anaerobic digestion is a safe, low-impact, well-understood and widely applied biological decomposition technology to process organic wastes throughout the United States and California – mostly sewage sludge at present – to generate recoverable methane gas. Similarly, acid hydrolysis is a well-known biological decomposition process to convert the cellulose fraction of a feedstock into sugars for ethanol production and other saleable by-products. There is no reason that anaerobic digestion and acid hydrolysis can't be effectively and relatively inexpensively applied to process separated materials for energy, fuel and other by-product recovery – as types of compost facilities. Anaerobic digestion and acid hydrolysis facilities clearly meet the definition of compost facilities -- provided that the organic wastes used as feedstock are separated from the municipal waste stream as defined in PRC 40116:

40116. "Compost" means the product resulting from the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which are separated at a centralized facility. "Compost" includes vegetable, yard, and wood wastes which are not hazardous waste.

This current statutory compost definition would clearly not cover the biological decomposition of mixed municipal solid waste. However, we are certain that this definition clearly allows the biological decomposition of materials that are separated from the municipal solid waste stream – either at the source or through subsequent processing.

We are concerned that the Draft Report does not clearly distinguish anaerobic digestion and acid hydrolysis technologies as forms of “composting” that is already considered to be a form of

recycling and eligible for diversion credit under AB 939 – today! For example, on page 9 and elsewhere, the Draft Report includes the following language:

Anaerobic digestion can be considered both a biological conversion technology and a composting technology because the digestate is a compostable residue. As a biological conversion technology material sent to an anaerobic digestion facility would not qualify for diversion credit, however, as a composting technology material would qualify for diversion credit. For purposes of clarity, biological technologies should be removed from the transformation definition.

This language implies that there is uncertainty as to whether anaerobic digestion (acid hydrolysis is not even mentioned!) is a form of composting or a form of conversion technology. In reality, this is a distinction that should not matter. As long as an anaerobic digestion or acid hydrolysis product meets the definition of “compost” in PRC 40116 – which it does – then this is all that is necessary for an anaerobic digestion or acid hydrolysis facility to move forward under existing law as form of composting facility. As a matter of legislative “house-keeping” it might be desirable to make the statutory clarifications suggested in the Draft Report – it is no means necessary for anaerobic digestion or acid hydrolysis facilities to be permitted today as compost facilities. *This fact needs to be made perfectly clear in the Draft Report.*

For example, we would suggest that Recommendation 4 that appears on pages 11 and 71 of the draft report be rewritten to read:

4. Diversion credit for *certain* biochemical technologies such as anaerobic digestion ~~should be considered~~ *and acid hydrolysis is already allowed under existing law as forms of compost facilities.* If the CIWMB is granted statutory authority to allow diversion credit for conversion technologies, it should be granted only under the provisions in the CIWMB adopted-policy *and should recognize that anaerobic digestion and acid hydrolysis are already considered eligible for diversion credit under AB 939 as forms of compost facilities.*

Please contact me if you have any questions about these comments and concerns.

Sincerely,



Charles A. White, P.E.  
Director of Regulatory Affairs  
Waste Management/West

cc: Rosalie Mulé, Member, CIWMB  
Howard Levenson, Deputy Director, Permitting and Enforcement, CIWMB  
Elliot Block, Legal Office, CIWMB