REPORT

DATE: April 7, 2005

TO: Energy and Environment Committee
Regional Council

FROM: Alan Thompson, Senior Regional Planner, thompson@scag.ca.gov (213) 236-1940

SUBJECT: Solid Waste Conversion

EXECUTIVE DIRECTOR'S APPROVAL:

RECOMMENDED ACTION:
Recommend to the Regional Council that SCAG support the California Integrated Waste Management Board (CIWMB) Resolution 2005-78.

SUMMARY:
The California Integrated Waste Management Board adopted Resolution 2005-78, which adopts their *Conversion Technology Report To The Legislature*, including the following policy recommendations:

1. The definition of "conversion technology" approved by the Board in Resolution Number 2002-177 be promulgated in law, and that more specific definitions of various conversion technologies be developed during a regulatory process.

   > *"Conversion" means the processing, through non-combustion thermal means, chemical means, or biological means, other than composting, of residual solid waste from which recyclable materials have been substantially diverted and/or removed to produce electricity, alternative fuels, chemicals, or other products that meet quality standards for use in the marketplace, with a minimum amount of residuals remaining after processing.* (CIWMB Resolution 2002-177)

2. The existing definition of "gasification" is scientifically inaccurate and should be deleted.

3. The "transformation" definition be amended to mean the combustion or incineration of solid waste.

4. Conversion technologies are distinct from landfills and incineration.

5. The Legislature should consider some level of diversion credit for conversion technology facilities in accordance with the conditions set forth in Resolution 2002-177

REPORT

BACKGROUND:
For several years, SCAG has been an advocate of conversion technologies. SCAG's Solid Waste Task Force Report from April 1996 advocates that the State "provide full diversion credit to non-burn transformation technologies." SCAG supports legislation that "removes any impediments to transformation or conversion technologies."

SCAG's 2004 Growth Vision Principle is to "Develop strategies to accommodate growth that use resources efficiently, eliminate pollution, and significantly reduce waste."

Diversion technologies can meet that policy as part of an integrated waste management system. Because conversion technologies can help divert waste from landfills and create new economically beneficial products that can be used in place of virgin resources, conversion technologies can promote "sustainability for future generations," also part of the 2004 Growth Vision.

FISCAL IMPACT:
No Fiscal Impact. Funds are allocated in the FY04-05 budget. Item is also part of the SCAG 2005 Legislative Program, which advocates:

> *Support legislation that removes impediments to the adoption of transformation or conversion technologies that will help municipalities maintain or exceed their requirement to divert 50% of their solid waste away from landfills.*

Attachments: CIWMB Resolutions,
Mark Pisano correspondence

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Resolution 2005-78 (Revised)

Discussion And Consideration Of Conversion Technology Report To The Legislature

WHEREAS, the 2003-2004 Waste Composition Study indicates that approximately 40 million tons of waste is landfilled in California; and

WHEREAS, Zero Waste is a primary goal of the Board's strategic plan; and

WHEREAS, Assembly Bill 2770, Chapter 740, Statutes of 2002, was signed by Governor Davis in September 2002 and required the CIWMB to research and evaluate new and emerging non-combustion thermal, chemical, and biological technologies and submit a report to the Legislature; and

WHEREAS, The CIWMB contracted with the University of California to conduct an analysis of conversion technology processes and products; and

WHEREAS, The CIWMB also contracted with RTI, International to conduct life cycle and market impact analyses of conversion technologies; and

WHEREAS, these peer reviewed reports served as the major source of information for the CIWMB Conversion Technology Report to the Legislature, which support the following major findings:

1. Conversion technologies are distinct from landfills and incineration, and can result in substantial environmental benefits for California, including the production of renewable energy, reduced dependency on fossil fuels, and reduction of greenhouse gases.
2. Conversion technologies can enhance landfill diversion efforts and can be complementary to the existing recycling infrastructure. The Board requirements for diversion eligibility for such facilities require that conversion technology facilities complement the local infrastructure and that they maintain or enhance the environmental benefits and economic sustainability of the integrated waste management system.
3. Conversion technologies would be expected to meet federal, state, and local air emissions requirements. Local air districts in California are best equipped to review and condition conversion technology facilities.
4. Definitions of conversion technologies in current statute are scientifically inaccurate, and should be amended.

WHEREAS, CIWMB staff conducted stakeholder workshops to discuss prior to preparation of the *Conversion Technology Report To The Legislature*; and

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WHEREAS, CIWMB staff accepted written comments and has considered stakeholder comments and amended the Report based on the stakeholders comments.

NOW, THEREFORE, BE IT RESOLVED, that the Board adopts Option 1 and the *Conversion Technology Report To The Legislature,* including the following policy recommendations:

1. The definition of "conversion technology" approved by the Board in Resolution Number 2002-177 be promulgated in law, and that more specific definitions of various conversion technologies be developed during a regulatory process.

2. The existing definition of "gasification" is scientifically inaccurate and should be deleted.

3. The "transformation" definition be amended to mean the combustion or incineration of solid waste.

4. Conversion technologies are distinct from landfills and incineration.

5. The Legislature should consider some level of diversion credit for conversion technology facilities in accordance with the conditions set forth in Resolution 2002-177; and

BE IT FURTHER RESOLVED, that the Board directs staff to forward the Report through Cal/EPA and the Governor to the Legislature; and

CERTIFICATION

The undersigned Executive Director, or his designee, of the California Integrated Waste Management Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the California Integrated Waste Management Board held on March 15-16, 2005.

Dated: March 15, 2005

ORIGINAL SIGNED BY

Mark Leary
Executive Director

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Resolution 2002-177 (Revised)

Consideration Of Diversion Credit for Materials Sent To Conversion Facilities And A Definition Of "Conversion"

WHEREAS, organic materials, paper, and plastics make up over three-fourths of what is landfilled in California; and

WHEREAS, non-combustion technologies such as gasification and hydrolysis exist that can convert unused, post-recycled materials into high-value products; and

WHEREAS, the Board's Strategic Plan encourages research on new technologies, supports local government efforts to use alternatives to landfilling (including conversion technologies), and promotes a "Zero-waste California" where the public, industry, and government strive to reduce, reuse, or recycle all municipal solid waste materials back into nature or the marketplace; and

WHEREAS, major barriers identified by participants at the Board's May 2001 "Conversion Technologies For Municipal Residuals" Forum included statutory and regulatory constraints; and

WHEREAS, staff held the "Regulation Of Conversion Technologies Workshop" on January 8, 2002, at which approximately 40 representatives from the technology industry, solid waste management industry, environmental community, and local and State governments discussed the regulatory and permitting framework for conversion technologies and diversion issues and developed recommendations; and

WHEREAS, upon direction by the Board at its February 19-20, 2002 meeting, staff convened a small working group that met on March 8, 2002, to further discuss the definition and diversion credit issues; and

WHEREAS, the working group reached consensus regarding a definition for conversion and findings that the Board should make in order for local jurisdictions to receive diversion credit, but did not reach consensus on whether to support a level of full, 25 percent, or 10 percent diversion credit;

NOW, THEREFORE, BE IT RESOLVED that the Board approves the following policy recommendations:

Option 2B (Definition): ""Conversion" means the processing, through non-combustion thermal means, chemical means, or biological means, other than composting, of residual solid waste from which recyclable materials have been substantially diverted and/or removed to produce electricity, alternative fuels, chemicals, or other products that meet quality standards for use in the marketplace, with a minimum amount of residuals remaining after processing."

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Option 3 (Findings): "Diversion credit shall be available if the Board makes the following findings: (1) the jurisdiction continues to implement the recycling and diversion programs in the jurisdiction's source reduction and recycling element or its modified annual report; (2) the facility complements the existing recycling and diversion infrastructure and is converting solid waste that was previously disposed; (3) the facility maintains or enhances environmental benefits; and (4) the facility maintains or enhances the economic sustainability of the integrated waste management system."

Option 4 (Report): "Beginning in 3 years after a conversion facility is permitted by the CIWMB and is operational, the Board shall, in its annual report to the Legislature, summarize the status of the conversion industry, including a list of permitted facilities and their contribution to the diversion of materials from landfills."

Option 5C (Level of Diversion Credit): "Jurisdictions that meet all of the above criteria [i.e., the findings by the Board] will be eligible for 10 percent diversion credit. Three years after a conversion facility is permitted by the CIWMB and is operational, the Board shall annually evaluate the amount of diversion credit that can be claimed by a jurisdiction, on a case-by-case basis, that sends materials to that facility. As part of its annual report to the Legislature in 2005, the Board should evaluate the effects of allowing diversion credit for conversion technologies and provide recommendations on whether the level of diversion credit should be increased as part of the AB 939 framework."

BE IT FURTHER RESOLVED that the Board directs staff to work with the Office of Environmental Health Hazard Assessment to assess scientific research on air emissions from different conversion technologies.

AND BE IT FURTHER RESOLVED that the Board recognizes that these policy recommendations and the need for conforming amendments may change during the normal course of legislative debate and procedures, and that the Board directs staff to work with Cal/EPA on responding to such changes.

CERTIFICATION

The undersigned Executive Director, or his designee, of the California Integrated Waste Management Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the California Integrated Waste Management Board held on April 16-17, 2002.

Dated: April 17, 2002

ORIGINAL SIGNED BY

Mark Leary
Executive Director

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February 15, 2005

Mr. Fernando Berton
Waste Prevention & Market Development
California Integrated Waste Management Board
1001 I Street, P.O. Box 4025
Sacramento, CA 95812

Dear Mr. Berton:

I would like to take the opportunity to comment on the draft *Conversion Technology Report to the Legislature.*

Landfills in the SCAG region are quickly reaching their capacity. Any technology that successfully diverts post-recycling solid wastes away from landfills should be encouraged and given incentives through regulation. The transformation of non-recyclable solid waste by conversion technologies, particularly when such wastes would otherwise have been destined for a landfill, should be eligible for full diversion credit.

For several years, SCAG has been an advocate of conversion technologies. SCAG's Solid Waste Task Force Report from April 1996 advocates that the State "provide full diversion credit to non-burn transformation technologies." SCAG supports legislation that "removes any impediments to transformation or conversion technologies."

SCAG recognizes that no single technology or management practice is suitable for the handling of all generated waste. Our 2004 Growth Vision principle is to "Develop strategies to accommodate growth that use resources efficiently, eliminate pollution, and significantly reduce waste."

Diversion technologies can meet that policy as part of an integrated waste management system. Because conversion technologies can help divert waste from landfills and create new economically beneficial products that can be used in place of virgin resources, conversion technologies can promote "sustainability for future generations," also part of the 2004 Growth Vision.

Conversion of solid waste does not occur in a vacuum. The CIWMB should include the South Coast Air Quality Management District with the California Air Resources Board in the efforts to study emissions from thermochemical and biochemical conversion technologies. Such cooperation could speed the process between study and regional implementation and avoid duplication of efforts.

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SCAG currently is preparing its Regional Comprehensive Plan (RCP) to implement and promote policy objectives of the Regional Council and to assist outside parties in working within regional plans. The Solid Waste chapter of the RCP advocates conversion technologies as one way to reduce non-recyclable solid wastes that would otherwise be sent to landfills.

SCAG strongly urges that the Integrated Waste Management Board use the opportunity provided by the formulation of this report to encourage the widespread adoption of conversion technologies and assigning full diversion credit in those cases where non-recyclable solid waste is actually diverted away from local landfills.

Thank you for your consideration of these comments. If you have any questions about the comments, please contact Alan Thompson, Senior Regional Planner, on the SCAG staff at 213-236-1940.

Sincerely,

Mark Pisano
Executive Director

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