

CENTER FOR RECYCLING RESEARCH
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28 July, 2013

To: Howard Levenson, CalRecycles

From: Arthur R. Boone, Principal, CRR

AR Boone

Re: Comments on WASTE MANAGEMENT SECTOR, a presentation on June 12, 2013.

I was present in person at the roll-out in June at your "waste sector plan" to comply with AB 32, AB 939, and AB 341's requirements.

I would make the following comments. The remarks were originally intended for the NCRA but got bogged up in time mismanagement.

Slide 5: It seems to me that the policy and program planning function of your agency continues to be impaired by the absence of accurate capture data on materials in California. Are we recycling 50% or 60% or 70% or 80% of the cardboard (and all other marketable materials)? Unlike Florida and Oregon where this data has been captured, California knows very little about the relative success of its diversion programs. We spend iots of time and money tracking the success of medications that are reported to cure a disease but have no knowledge of what works to recycle more of X or Y or Z because we don't know how much of X or Y or Z is available for recycling and how much is captured.

Slide 8: I have never read AB 341 to require the "need to move 22 million tons from landfills." AB 341 wants 75% recycling measured as the state has measured recycling since 1992 or so (what I call the "Tseng formulations"). The state is currently at a 62% calculated diversion percentage and, in a straight line projection of recent numbers into the near future, the data suggests that, even with no new diversion activities, the state will be at a diversion number in 2015 very close to the 2020 goal and it could be difficult to convince the legislature that any new programs or pushes should be implemented.

Slides 13, 14, and 15: These slides list the 13 potential actions that staff has recorded, but all actions boils down to four: 1) information and education, 2) programs, 3) financial gains and losses, and 4) corporal/bodily punishments. The lists given seem weak on command and control at a time when local governments throughout the country are adopting so-called mandatory recycling ordinances. If the USEPA can develop policies and programs under the Clean Air Act to control global warming, the department should be able to create landfill bans to meet 75% waste reduction goals. Slide 13 says CARB should deal with organics at landfills; we believe this is an agency function as Gary Liss has called attention to the European Community's 1999 directive calling for the ban of all organics going into landfills.

I would also encourage caution in moving forward on EPR, especially for packaging. The NCRA has members in British Columbia and the programs there are incineration-friendly, unkind to small program operators, and the stewards really don't seem interested in highest and best use of used materials. EPR has been greeted by local government officials with great enthusiasm as a source of new energy and funds to deal with the continually growing cavalcade of used materials needing management, but unless properly constrained, stewards are increasingly being seen as not likely to be doing a good job. The jury is still out on distinguishing between good and bad EPR but we have learned enough in the last few years to know that all EPR is not categorically good.

Slides 18 and 19: The data presented in slide 18 are new to me and the relationship between the 48.4 MT number at the bottom of the chart and the 36 MT number in the text slide was not explained.

At the hearing we drew the comparison between the 48.4 MT "diverted" (slide 18) and the 2.3 MT reprocessed in the state (slide 19) to indicate that almost all of the recyclables collected and sent to market in California have gone out-of-state with many going out-of-country. Your agency has for several years now been calling for the re-industrialization of California but has never identified the large extent to which California is reliant upon the kindness (although no doubt also the profitable activity) of other states and countries to provide the basic paper, metals, and plastics consumed in the state.

The reason we have a limited collection of recyclable materials in California is not because of the absence of local, in-state, markets but because the garbage paradigm still dominates large portions of the state and the waste hauling and disposing operations continue to exert major influence on public policy that retards the development of a zero waste culture. If we have diverted 48.4 MT with little in-state markets, we can divert another 22 MT (slide 20) with no more in-state markets.

I appreciate the desire of officials to market more materials in the state but we do participate in a global economy and the location of basic industries that can utilize recyclable materials as feedstocks is much more complicated than your California-first, drum-beating suggests. The strong industries in California (entertainment, high-tech, agriculture) rely, except in soil amendments for agriculture, very little on recycled products and materials. Nobody in California runs out of paper, metals, glass, and plastic due to the lack of local producers; the world-wide network of flowing goods provides for us.

Slides 36 to 41: Biomass conversion: At no point are the tons of materials involved discussed, only the relative proportions and BTU value of the feedstocks.

Slide 51: To speak of "uncertainty in LF emissions" is a misnomer. There is now creditable scientific evidence that the methane generated by food debris organics is largely done by six weeks after discarding and that any methane accounting for landfills needs to take notice of the fact that the methane is long gone when any flux measurement systems are in place.

I believe it is also well understood that when methane is fed into internal combustion engines that the need to avoid sucking oxygen into the collection system is so strong (in order to avoid explosions) that the pulling pressure on the methane is managed to reduce oxygen intrusions but acts to allow more methane to escape from the closed cell than

with direct flaring type systems. Burning methane to make energy in landfills thus actually is opposed to methane destruction; not intended but now well documented.

While landfill apologists may not like these recently reported findings, there is no "uncertainty" about their truth. I'm sure Sally Brown at the University of Washington and Peter Anderson at the Center for a Competitive Waste Industry in Madison, Wisconsin can provide the references.

I also associate myself with the comments of NCRA member Gary Liss who spoke eloquently at the meeting about the need for more research and development funds for recycling industries and a greater awareness of China's so-called Green Fence that is lately making China unfriendly towards the highly-contaminated materials shipped out of dirty MRFs in California. He also noted the strong role that local regulations regarding the management of C+D materials has stimulated local diversion activity in that field while your message is very weak on command and control roles for state government.

I also associate myself with the comments of Bill Magavern, representing the Coalition for Clean Air, calling for all organics out of landfills and a careful measurement of any emissions from transformation technologies.

I also associate myself with the comments of the Sierra Club and others denying renewable energy credits for any waste conversion activities, including WTE incineration. When the Lara bill died this year to extend REC to the Long Beach incinerators, NCRA suggested that instead the RECs for Stanislaus be withdrawn to level the playing field. In a world of finite resources, any materials destruction is questionable at best and not, in my opinion, in the planet's long-term interest.

28 July, 2012.