Little Hoover Commission Discussion on SB 1383

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Want to give you some context for my comments:

I believe in the goals/objectives of the legislation, keeping organics out of the landfill is required to reduce methane emissions from landfills. Comments are meant to be constructive, as we all want to reduce organics disposal.

For the last 5 years, I have been working via our LEA with NASA/JPL and now Carbon Mapper on aerial imaging of methane from point sources, landfills, energy generation facilities, agricultural facilities, cattle facilities. The single most important finding that NASA has determined is that landfills in California is the single largest point source of methane emissions. (links provided to Krystal)

This finding has changed the way we now look at Climate Change action planning, and for the first time ever, the UNFCCC in Egypt will have separate section on the impact of solid waste infrastructure and methane from landfills… on climate change. With Carbon Mapper, designing the technical assistance based on imagery that will be coming from a constellation of satellites monitoring facilities internationally.

Now, both the National Science Foundation and NASA is looking at how the solid waste infrastructure and technology and law/policy needs to be overhauled in addition to how new digital technologies can be employed in the industry.

The linked documents are reference documents and the basis for some of my comments.

Bad news first:

As SB 1383 is now being implemented (with the current policies, regulations and State enforcement approach, the State will **NOT** make goal of 75% disposal reduction goal.

In comparison with international best management practices, California/USA is about one generation, or about 25 -30 years behind what has been done in other countries that have achieved over 85% diversion from landfill.

Good news is that we can catch up and learn from existing best management practices.

Constructive Comments:

1. Obvious SB 1383 policy preference for SSO collection and processing. However, the majority of SB 1383 organics is still in the mixed waste stream,… and the policy and regulatory bias towards mixed waste processing makes it impossible to meet the 75% disposal reduction goal. The best successful programs in the world also focuses on getting the organics out of the mixed waste stream that is bound for disposal.
State / CalRecycle policy and regulations on this does not make any sense. You can have as much contamination in a SSO organics collection system and the SSO processing line does not have to achieve any specific recovery rate that a mixed waste processing line has to.

2. Don't tell industry/jurisdictions to just follow the regulations that are so restrictive and does not allow for flexibility.

If a jurisdiction wants to process the mixed waste stream where most of the organics are, the mixed waste can ONLY be sent to a facility that can achieve a 75% recovery rate of organics. This is a ridiculous performance standard, any additional recovery (e.g., 60% recovery of organics of the mixed waste input is

better than not processing any mixed waste at all. Nobody is going to build a facility that only achieves 60% recovery if no mixed waste is going to sent there)

3. CalRecycle should NOT be telling facilities how to operate their processing lines. The regulations prohibit the mixing of source separated organics with mixed waste to be processed together. There are facilities that have to "blend SSO with mixed waste" just to have the physical materials handling properties" to able to be fed into the organics food processing recovery line.

4. Every country that has achieved over 80% diversion from landfill disposal utilizes a systems engineering or Integrated Waste Management Approach. Have many examples from over my last 30 years of international solid waste management technology and law/policy assessment. Even Integrated Waste Management is a policy in this State since the passage of AB 939, but it has never been fully implemented, and this especially obvious with the policy and regulatory bias towards "conversion technologies that involve thermal processing".

5. Need to allow flexibility in how jurisdictions want to design and implement organics diversion programs,… especially smaller rural jurisdictions. They should not have to fit into prescriptive model,… three cart, two cart collection system. One rural community utilizes "blue bags" which is used to collect recyclables and the blue bags are put into the black bin so the same truck can be efficiently used to pick up the recyclables as well as the trash. The blue bags are separated and stockpiles and processed separately to recover recyclables… when the mixed waste is also processed and recyclable materials recovered.

The blue bag is an improvement upon r the original "split bin" (a bin with a physical divider in the middle, one side for recyclables, and one side for trash, considered innovative by CalRecycle and met the program implementation for having source separated recyclables. Problem was that too much trash… and people put it into the recycling side. The blue bag system does not have a physical divider but achieves separation of recyclables and trash. Yet, SB 1383 does not recognize this approach that works well for small rural communities. (And the approach can potentially be used for SSO (food waste).

6. Prescriptive mandates sometimes do not make sense. Do you run a separate food waste collection and compost program when you only collect 2 tons a day, and must drive over 100 miles to a composting facility? The amount of GHG from transportation should be compared to the GHG savings from composting the two tons. What is the focus?... should be on the overall impact (life cycle) of the mandated program,…. Should allow jurisdictions to propose "alternative" programs.

7. Some current regulations are technically not correct (e.g., incompatibles in disposal vs non-organics); causing confusion with facilities and jurisdictions, … basically data submitted using the protocols described in regulations are not correct. Need to correct ASAP.

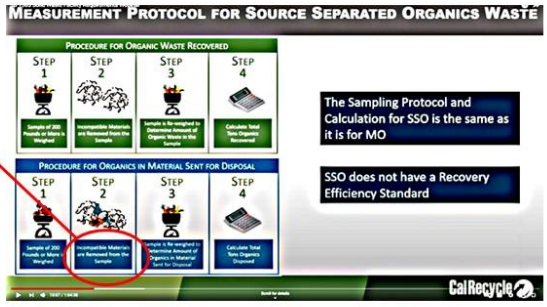
Section 17409.5.5. Measuring Organic Waste in Materials Removed from Source Separated Organic Waste Collection Stream For Disposal.

(a) The operator of an attended operation or facility that accepts a source separated organic waste shall measure the amount of organic waste by weight present in the materials removed from the source separated organic waste collection stream after processing that is sent to disposal.

(b) The operator shall comply with Subdivision (a) by using the following protocol:

(3) Remove any **incompatible material** and determine the remaining weight of the organic waste in the sample.

NOTE: CalRecycle-approved WM's Alternative SB 1383 Methodology did not follow this protocol. This is a nonsensical and technically incorrect regulation. **(Should be "non-organic materials")**



8. Lots of other issues need to be addressed:

CalRecycle training videos of waste measurements are incorrect: Example of improper sample extraction of recovered greenwaste for characterization from pile

CalRecycle Training Video: Sampling Procedure

NOT ACCEPTABLE: Must utilize a "Slice Cut", taken from "bottom up"
(Note: Dense small items, e.g., glass, metal, concrete, shifts to bottom of the pile)

9. Some regulations not practical (cost, time, resource requirements, health and safety issues, etc.). Regulations for SB 1383 requires the determination of how much "organics" and "incompatibles" are in recovered materials. Let's take the example of a source separated organics food collection and its food waste recovery processing line.

Regulations says, take a 200-pound sample of the recovered materials and characterize it. Collected food waste can literally be in the form and consistency of oatmeal or vomit.

Source Separated Organics (SSO)

After it is processed (recovered), some facilities basically have recovered liquid or mushy solid (like a giant pile of dog poop).

Recovered Food Waste from SSO

How do you physically characterize to determine organics and incompatibles (glass, metal, plastic,.. etc.) in these materials. How do sort 200 pounds?

SB 1383 Alternative Measurement Method (LEA Example,.. how to sort "recovery" and "disposal" of SSO processing line materials.) Cost the facility almost $200,000 to develop an approvable "alternative SB 1383 measurement methodology". No physical way to characterize 200 pounds of mush. Industry standard is to use 1 liter sample and use chemistry lab (one to two times a month).

Many other facilities face the same issues. (at least four (4) other facilities just in the LA area),… our LEA is being asked to work with other facilities now,… and they should not have repeat everything or to go through what this first facility (Waste Management) had to. CalRecycle just use this reference case study as the technical basis for the other facilities that use similar processing technology.

10. These are just a few of my comments regarding the SB 1383 issues faced by jurisdictions, processing facilities, … and hopefully they can be addressed.

I think that many of the panelists / commenters will agree with me with the assessment of successful international programs. "Governance", the important role of technically competent collaborative governance is a common key thread that you find.

California needs to overhaul it approach to address how we need to utilize a truly holistic science-based systems engineering based integrated waste management approach which includes internationally proven best management technologies, and policies that focuses on climate change, but never lose sight of the prime directive of solid waste management, which is the protection of public health and the environment.