

Comments on Draft Scoping Plan Appendices Waste Management August 14, 2008

Pages C-16, C-182, and D-12. 25,000 MTCO₂e Threshold for Cap and Trade

WM supports California development of a Cap and Trade program in concert with that of the Western Climate Initiative (WCI). The WCI program clearly recognizes that a 25,000 MTCO₂e Threshold should only be applied to those sources for which there are well developed and widely accepted protocols for calculating emissions from individual sources. The Solid Waste and Recycling Sectors does not yet have well-developed protocols for determining emissions from many of our operations, including landfills, compost operations and GHG reductions associated with recycling. Further, if something like the 25,000 MTCO₂e threshold were applied to solid waste landfills, for example (and aside from the problem of estimating emissions), the regulatory scheme would be faced with the problem that many larger, more efficient facilities might find themselves over the threshold, while many competing, yet less-efficient facilities might find themselves under the threshold. These concerns point to two fundamentals that must be part of establishing a cap and trade program:

1. Facilities and operations without clear protocols for accurately calculating emissions on an individual facility basis should not be included, and
2. Inclusion or exclusion in the cap and trade system should be based on the overall characteristics of a particular sector, rather than on a strict threshold.

Page C-34. Medium and Heavy Duty Vehicle Hybridization.

WM is firmly committed to the deployment of heavy-duty (HD) hybrid vehicles to our fleet. Rather than regulatory approaches, WM encourages CARB to support incentive based programs or provide hybrid vehicles the ability to generate salable GHG reduction credits with the deployment of vehicles. Because HD vehicles used by the solid waste and recycling industry are not manufactured in California. Any regulatory, incentive or GHG credit program should not be restricted to only HD vehicles manufactured in California.

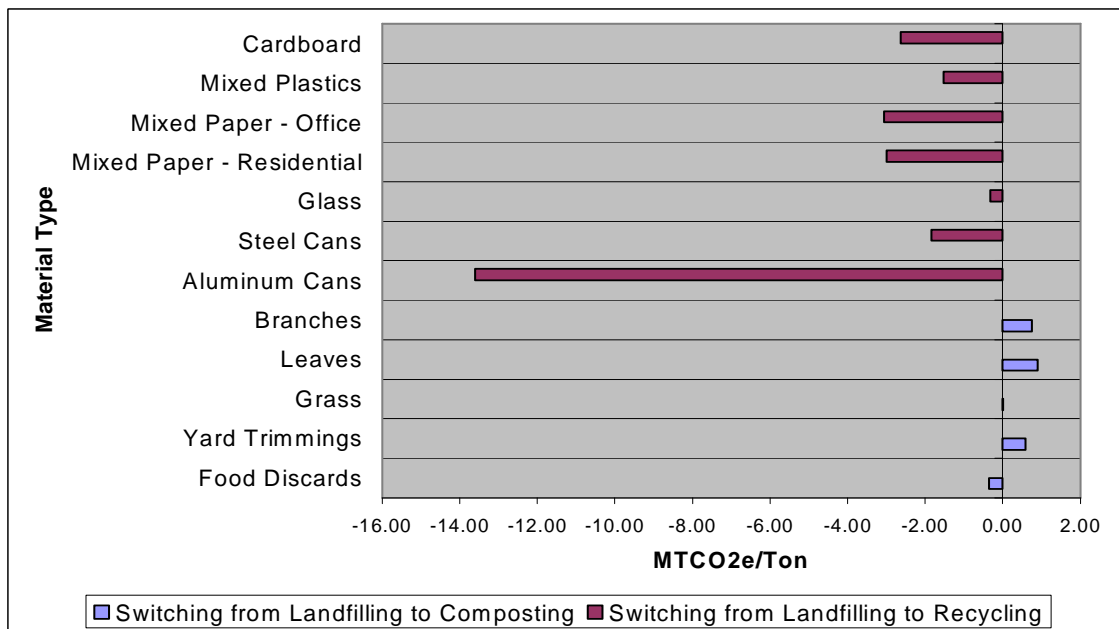
Page C-58. Electricity and Natural Gas -- Overlap with Other Sectors

Missing from this section is discussion of the overlap with the Waste and Recycling Sector – other than landfill gas. Many of the GHG reductions associated with Recycling are due to the reduced emissions from Electricity and Natural Gas when using recycled commodities as opposed to virgin materials. Attached to these Comments is a Paper prepared for Waste Management by ICF International entitled, “Greenhouse Gas Offsets from Recycling”. We urge you to consider the linkages between these two sectors as described in that attached reference.

Page C-125: Recycling and Waste Management

This section continues to rely on incorrect and outdated estimates of GHG emissions from California's landfills. Approximately 94% of the Waste-In-Place (WIP) in California has an active Gas Collection and Control System (GCCS). The emission estimates from landfill contained in the scoping plan is based on the erroneous assumption that California's drier landfills and highly regulated gas collection systems are doing no better than the national average default assumption of 75% gas collection efficiency. The Solid Waste Industry for Climate Solutions (SWICS) has repeatedly pointed out the fallacy of this assumption. At a very minimum, the CARB should clearly indicate the assumptions that are used to calculate these emissions rather than appear to state them as absolute fact.

The assumption on page C-124 that diversion from landfills will automatically result in GHG reductions is simply not true. The following chart is based on data developed by the US EPA in their "*Solid Waste Management and Greenhouse Gases: A life Cycle Assessment of Emissions and Sinks*" updated in October 2006. While many diverted and recycled materials result in significant GHG reductions (those with bars on the left of the vertical line) – many do not. WM asks that CARB be more accurate and objective in estimating the GHG benefits associated with recycling and diversion of waste.



Page C-126. Liquefied Natural Gas (LNG) from Landfill Gas

Waste Management Strongly supports CARBS recognition of this as an available immediate strategy that should be supported and encouraged. The Scoping Plan should clearly support the ability of such projects to generate GHG reduction credits either through the Low Carbon Fuel Standard or through the generation of tradable offsets under AB 32.

Page C-126. Composting

The Draft Scoping Plan appears to assume that composting results in reduced GHG emissions. This is not true (see above chart !!). Further, CARB appears to be ignoring data gathered by the states own air districts regarding GHG emissions from composting facilities. Attached are 3 recent reports prepared by the South Coast Air Quality Management District that measured the amount of GHG emission from composting facilities in Southern California. If these emissions are representative, this would mean that on per ton of organic material basis, compost facilities are emitting roughly the same amount of methane on a per unit basis as do landfills with 75% methane collection efficiency. Simply because there is limited data on methane emissions from compost operations does not mean such emission do not exist. CARB should certainly use all available data from the air districts such as the 3 reports attached to these comments.

Page C-149. Foam Recovery and Destruction.

This section of the appendices implies that emission of GHGs from insulating foams is due to landfilling. This is not true. These emissions occur primarily due to the release of blowing agents capture in the foam. There is considerable evidence that that disposal of these foams in landfills effectively attenuates the blowing agents prior to atmospheric release. Attached to these comments are several papers that substantiate this fact. The recycling of insulating foams that does not include recapture of the blowing agents is more likely a source of GHG emission from blowing agents than is landfilling. Banning of waste foams from landfilling would not be an effective strategy for reducing GHG emissions – particularly if the alternative is the uncontained shredding of the foams prior to recycling.

Page F-5. Landfill Inventory of Emission

This section projects that landfill emissions will increase from the current CARB estimate of 5.6 MMTCO₂e to 7.7 MMTCO₂e by the year 2020. This is apparently based on waste in place but does not include continued improvements in the landfill methane capture and destruction at California's landfills – which has shown steady decline for the past 15 years. There is no reason to believe that there will not continue to be a decline in LF GHG emissions in the future. Further, the CARB estimates of landfill GHG emissions from California landfills are highly in accurate due to reliance on nationwide default assumption that landfills are only capturing 75% of the gas they generate. WM believes that actual capture efficiencies at individual landfills are much higher.

Attachments:

1. White Paper: Greenhouse Gas Offsets from Recycling. Prepared by ICF International for Waste Management, April 2008
2. Attenuation of Fluorocarbons Released from Foam Insulation in Landfills
3. Comparative Oxidation and Net Emissions of Methane and Selected Non-Methane Organic Compounds in Landfill Cover Soils
4. Release of CFC-11 from Disposal of Polyurethane Foam Waste
5. Short- and Long-Term Releases of Fluorocarbons from Disposal of Polyurethane Foam Waste
6. Capacity for Biodegradation of CFCs and HCFCs in a Methane Oxidative Counter-Gradient Laboratory System Simulating Landfill Soil Covers
7. Attenuation of Alternative Blowing Agents in Landfills
8. Modeling the Behavior of Slowly Released Organic Compounds in Landfills
9. SOURCE TEST REPORT 95-0032/96-0003 CONDUCTED AT **EKO Systems 8100-100 Chino-Corona Road Corona, CA, 91720**
10. SOURCE TEST REPORT 01-171 CONDUCTED AT **Inland Empire Composting 1951 W. Key Street Colton, CA 92324**
11. **SOURCE TEST REPORT 96-0007/96-0008/96-0009 CONDUCTED AT San Joaquin Composting, Inc. Holloway Road Lost Hills, CA.**