



WASTE MANAGEMENT

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November 14, 2008

Via Email: czhangti@arb.ca.gov

Christina Zhang-Tillman
California Air Resources Board
1101 I Street
Sacramento, CA

Subject: Comments on Draft LCSF Regulation

Dear Christina:

Thank you for the opportunity to submit comments on the draft proposed LCSF regulations for which comments are requested as of today's date. Waste Management (WM) provides comprehensive waste and recycling services throughout California. We operate a Heavy-Duty fleet of over 3000 vehicles in California – most running on diesel, including over 500 on various bio-diesel blends and including over 500 natural gas fueled vehicles. In addition, waste management operates 12 solid waste landfills that generate significant landfill gas and accept biogenic wastes in a variety of forms. Waste Management has a partnership to develop a Landfill Gas (LFG) to LNG facility at our Altamont Landfill in the Bay Area in partnership with Linde/BOC and the Gas Technology Institute (GTI). We expect to produce over 13,000 gallons of Very Low Carbon Fuel (VLCF) in the form of LNG starting in 2009. I have attached a fact sheet on this project for your consideration.

With respect to landfill gas projects such as the Altamont LFG to LNG cited above and described in the attachment, I would like to emphasize the following key points:

- Landfill gas or "biogas" will be flared and "wasted" if something is not done with it to use it beneficially. Hence, making a fuel product out of it displaces a fossil fuel and effectively eliminates the carbon emissions from the fossil fuel that was not burned.
- If CARB views biogas no differently than pipeline natural gas, industry will be effectively incentivized to burn fossil natural gas since it does not require significant clean-up and costs that biogas requires. Biogas will continue to be flared and, although considered to be a "biogenic" emission source, would not be used to displace fossil fuel carbon emissions. Biogas and fuels from wastes must be considered by CARB to be totally biogenic and "carbon neutral".

- The LCFS was established (at least initially) based on how much fossil carbon the conventional fuel processors (a.k.a. petroleum refiners) put into the supply chain. In the case of the Altamont LFG to LNG project cited above and similar projects, none of the project participants are traditional “petroleum refiners”. Thus, CARB must establish methodologies so that fuels that don’t necessarily pass through existing liquid fuel channels are properly accounted for in the standards and LCFS “credits” can be efficiently generated and transferred to those traditional fuel suppliers who need these credits to meet their LCFS compliance schedule.

In addition to the Altamont LFG to LNG project, WM is currently evaluating the feasibility of a wide variety of other VLF producing technologies for potential application in California and throughout the country. This includes anaerobic digestion of biomass waste, gasification of biomass waste, and cellulosic ethanol production from biomass waste. The LCFS being developed by the California Air Resource Board (CARB) could be a primary driver to bring these technologies to market in California – sooner rather than later.

Biogenic Emissions of CO₂

As we have communicated with CARB previously, we are concerned about the lack of distinction in the LCFS between anthropogenic and biogenic emissions of CO₂. For example, we believe that CO₂ emissions from fuels derived from the biogenic portion of the waste stream should be considered “carbon neutral”. That is, the CO₂ emissions from the combustion of these “biogenic fuels” would be considered as part of the near-term carbon cycle. Emissions of CO₂ from purely biogenic sources should be treated completely differently from CO₂ emissions from anthropogenic sources – such as fossil fuels.

Under international greenhouse gas accounting methods developed by the Intergovernmental Panel on Climate Change (IPCC), biogenic carbon is part of the natural carbon balance and it will not add to atmosphere concentrations of CO₂. Most international protocols use an emission factor of zero for landfill gas, wood waste, food waste and other biomass waste fuels in which the carbon is entirely biogenic.

That being said, we agree that fossil fuel sources of energy used to produce or transport the bio-fuel, as well as land use carbon intensity implications of energy crops, need to be included in calculating the overall carbon intensity of the fuel -- as you have done and are doing. However, waste derived fuels do not involve any land use carbon intensity considerations because the feedstock is a discarded waste. The molecule of CH₄ that is burned as a fuel is totally of biogenic waste material origin. Further, the waste-derived fuel production facility can use waste-derived energy (e.g., landfill gas) to refine and produce the fuel. Likewise, biogenic waste fuel producing facilities can be located in urban areas close to the fueling operations and/or use bio-fueled vehicles. For these reasons, we believe that waste derived biomass fuels can have a very low carbon intensity.

If there are collateral fossil fuel emissions associated with the production and transport of the biogenic fuel, as well as land use carbon intensity implications of energy crops (but not for waste derived bio-fuels), the GREET model accounting tool could be easily add these emissions in separately to determine the overall carbon intensity of the biogenically produced fuel. The base biogenically derived fuel molecule should remain “biogenic”.

Toward this end we strongly recommend that the LCFS include a definition for biogenic fuels – at least those derived from waste biomass – and a clear statement indicating that CO2 emissions from the combustion of these waste-derived fuels are considered to be biogenic and “carbon neutral”.

Phase-In of the Low Carbon Fuel Standard

Waste Management is concerned about the proposed phase-in of the LCSF. Although the draft proposed regulations call for the required 10 percent reduction in carbon intensity by the year 2020, the draft proposed regulations call for relatively little carbon intensity reduction in early years as compared to much greater decreases in carbon intensity in California fuels in later years – particularly after 2015. This creates a disincentive for early development of Very Low Carbon Fuels (VLCFs) – such as those derived from waste biomass. California fuel providers will likely be able to meet the necessary LCSF standards until 2015 by using relatively low cost strategies that do not involve the development of VLCFs. We are concerned that the development of VLCFs will be severely curtailed until after 2015 by the compliance schedule in the regulations as currently proposed.

The ability to bank LCFS credits will be critical to mitigating the impact of delayed reductions in carbon intensity levels of California fuels until after 2015. We strongly support the ability to bank LCFS credits that may be generated in early years and then market them in later years when demand may be greater. There should not be any capping of banking of LCSF credits by producers of VLCFs in early years. *Producers of VLCFs would be further disincentivized if the ability to bank credits were to be in any limited during early years.*

In addition, we recommend that CARB explore ways to further incentivize the production of VLCFs in early years – perhaps by granting additional incentives for the purchase of VLCF credits in early years. Various ways of doing this include:

- Employ a straight-line phase-in of LCFS reductions between 2010 and 2020 – rather than the currently proposed curve with limited reductions during early years and greater reductions during later years.
- Requiring a percentage of all LCFS reductions in any given year during the phase-in of the rule to be made up by the production of VLCFs. This incentive could decline after 2010 and disappear after the year 2015.

- Give additional incentive credits to fuel producers whose portfolio is made up of VLCFs during early years.

WM encourages the CARB to consider ways in which the final LCFS rule might be structured to incentivize the early deployment of VLCFs. Failure to provide for such incentives could effectively delay the deployment of VLCFs until after 2015 – or even later.

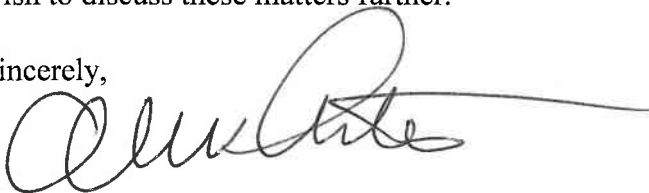
Reporting Requirements and Regulated Parties

WM is also concerned about the current requirement in the draft proposed regulations that all producers of fuel must become fully regulated parties and subject to the full compliance provisions of the regulations. This is true regardless of whether the producer is a large traditional producer of petroleum based fuels or a small producer of only VLCFs derived from waste biomass. As currently proposed, all participants small or large, traditional or VLCF producers must all be subject to the same compliance provisions.

As an alternative, WM suggests that streamlined and simplified compliance provisions be developed for fuel producers that only produce fuels that are less than a specified carbon intensity for any given year. In this fashion, producers of only VLCFs or low carbon intensity fuels would be further incentivized with lower compliance and reporting costs.

Please contact me if you have any questions regarding the information provided in this letter or wish to discuss these matters further.

Sincerely,



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

Attachment: Fact Sheet -- Recovery and Utilization of Biomethane Landfill Gas for
Transportation Fuel

cc: Dean Simeroth, ARB, LCFS
John Courtis, ARB, LCFS
Howard Levenson, CIWMB
Brenda Smyth, CIWMB