



WASTE MANAGEMENT

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December 19, 2008

Via Email: mansingh@arb.ca.gov

Ms. Manisha Singh
California Air Resources Board
1101 I Street
Sacramento, CA

Subject: Comments on Draft LCFS Regulation

Dear Ms. Singh:

Thank you for the opportunity to submit comments on the draft proposed LCFS 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 3,000 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. WM 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.

WM fully supports the implementation of a low carbon fuels standard and stands ready to participate in this new marketplace. Having said this, we do have a number of concerns with the current (December 2008) draft of the regulation. Our primary concerns are with the market trading mechanisms outlined in the current draft, as well as the definition of regulated party. We have outlined these concerns below in priority order:

SPECIFIC DOCUMENT SECTION COMMENTS:

- **Section 95425(c)(2), p33 – LCFS' Credit Trading Limitations.** As it is currently written, this section seems to limit the purchase, sale, and trading of LCFS credits to regulated parties or a 3rd party acting on behalf of a regulated entity. While innocuous enough in principle,

WM is concerned that this language could stifle the development of a proper trading market for LCFS credits. In a large-scale market-based program like the LCFS, WM would like to see third party carbon brokers able to “make a market” for these credits. This type of market making activity tends to increase the liquidity of these credits and stimulate firms to generate these types of credits. These activities also tend to make it easier for more companies to meet their compliance obligations under the new LCFS regs.

We would suggest that this section be removed in its entirety. If that is not possible, we would like to sit down with your staff to better understand the intention of this language and to discuss possible alternatives to this language that won't have the chilling effect that we believe the current language will have.

- **Section 95425(c)(1)(A), p33 – 20% Credit Rollover Cap.** As in our comments above, WM is concerned that this language might hinder the formation of a robust trading market for LCFS credits. A true market-based system should generally allow for some companies that do not want to directly comply with regulations to purchase offsetting credits to meet their environmental obligations. If the market is running properly, the cost of compliance thru this method would tend to force all companies to comply in some way as their marginal cost for credits tends to rise as they purchase more and more those credits. This 20% cap seems to be an overly prescriptive effort to force the current marketers of transportation fuels into compliance. WM believes that a truly market-based mechanism will be a more cost-effective and more successful way to encourage compliance with the new LCFS regulation.

For example, WM is not currently a provider of transportation fuels in California. However, WM holds title to considerable landfill resources that may be used to produce very low carbon fuels. In order to develop this resource we need to have financial incentives to make such projects viable. By restricting the liquidity of the LCFS credits that we might be able to generate from new landfill gas to transportation fuel projects, you are restricting the incentives for this resource to be developed. Conversely, if you minimize restrictions on how these credits may be banked or traded to other parties you will provide greater incentives for the development of low carbon fuels. We suspect that many low carbon fuels (such as landfill gas) will *not* be developed by current fuel providers. Rather, new entrants into the market place will likely be a major new source of many such new low carbon fuels. To maximize the incentives for the development of such fuels you need to remove artificial barriers to the trading of LCFS credits.

The LCFS, as currently proposed, does not require much reduction in fuel carbon intensity until after 2015. Thus, capping the future tradability of credits generated in early years will cripple the development of low carbon fuels in early years before 2015. By eliminating the 20% rollover cap you will send a clear signal that the early development and deployment of low carbon fuels by new market entrants can be rewarded if they hold onto those credits until later years. Imposition of the 20% rollover cap will simply delay significant development and deployment of low carbon fuels by *new* transportation fuel market participants until after 2015 – or even longer.

Although we suggest that the 20% rollover cap be dropped from the proposed regulation, if a cap is retained in some form, it should not be restricted to only credits generated in only “the previous year”. At a minimum, the term “the previous year” should be replaced with the term “any prior year”.

- **Section 95424(a)(5), p17 – Regulated Party for Biomethane.** As it is currently written, and because of the current business practices in the LNG and Biomethane marketplaces, it will be difficult to determine exactly which parties will be regulated entities and which parties will not. In the current marketplace, fuel can be produced by one entity, sold to another to transport/market the fuel, and then transferred again to a dispensing party. The current language for hydrogen [under Section 95424(a)(7)] is much more clear. Therefore, similar to your proposed language for Hydrogen, we would suggest adding the following sentence to this section:

“For Biomethane, the party that holds title to the actual fuel as it is first produced in California or as it is first imported into California will be the regulated party unless the producer/importer and station owner have a written agreement to transfer the responsibility of the regulated party to the station owner.”

- **Section 95424(c)(3)(B), p22 – Quarterly Reporting.** As mentioned above, the current LNG and bio-methane marketplaces use multiple parties to produce, deliver, and dispense transportation fuel. In the likely scenario that the fuel producer is the regulated entity, it could be quite difficult to report how much fuel was specifically dispensed into vehicles because the producer will not necessarily have access to the records of the actual vehicle fuel-dispensing firm. Further, most LNG producers will supply fuel to a large number of dispensing customers, so consolidating the reporting from every possible fuel station will be very onerous. Therefore, we would suggest adding the following sentence to this section:

“If the regulated entity is not the actual fuel dispenser, then the regulated entity would be required to submit quarterly reporting on the amount of fuel dispensed to fueling station owners for the express purpose of being dispensed in to LDVs, MDVs, and HDVs.”

The fuel station owners are obviously motivated to sell the fuel they purchase, so they would have no incentive to not dispense any fuel that was delivered to them.

- **Section 95420(a)(3), p2 – Biomethane Definition.** As it is currently written, this section would require all Biomethane to meet existing pipeline-quality specifications, even though not all Biomethane will be transported via pipeline. WM recommends that CARB remove the pipeline-quality reference and replace it with a reference to the existing CARB Natural Gas Motor Vehicle Fuel Specification (NGMVFS). Any natural gas transportation fuel will have to meet this fuel specification and any Biomethane that is transported through a pipeline will have to be of pipeline quality anyway, so that, in reality, either or both requirements in the LCFS would be superfluous. However, at least the NGMVFS would be applicable to any use of fossil or Biomethane natural gas used as a motor vehicle fuel. The pipeline-quality reference would only be applicable to those motor vehicle fuels actually transported in a pipeline.

- **Section 95420(a)(25), p4 – Renewable Biomass Definition.** As it is currently written, this section is unnecessarily specific about the sources of renewable biomass. While biomass usage for transportation fuels is very limited today, the specificity in the current draft regulations would make it very difficult for future biomass fuel producers to be compliant with the LCFS regulation. The current language would require that biomass producers be able to determine the origin of all incoming waste (something very difficult with biogenic materials) and only accept the allowable waste products for producing low carbon fuels.

This would be impractical and could impede future biomass producers from entering the market due to these constraints. Further, the definitions from the LCFS could be used as a precedent in future state and federal low carbon regulations, which could further hurt the valuable biomass production cycle. The LCFS should assess the validity of producing a low carbon fuel from biomass solely on the carbon intensity of the fuel as determined by a life-cycle analysis. It is our view that the LCFS should not otherwise try to constrain the sources and types of biomass fuels by artificially restrictive definitions. Therefore, we would recommend that CARB remove this section in its entirety.

GENERAL COMMENTS

During the development of the LCFS regulations, WM has had several conversations with CARB staff about potential LFG fuel pathways. During several of those conversations, CARB has discussed the availability of an LFG-to-LNG pathway. CARB has worked with CEC and TIAX to create the LFG-to-CNG pathway document, but to date there is still no published LFG-to-LNG pathway document published on the LCFS website.

WM realizes that there are LNG pathway documents and the LFG-to-CNG pathway document with various pathway elements that might be able to be combined to form an official LFG-to-LNG pathway, but we would like to see an official CARB-published pathway that we can reference.

WM has seen reference to a CEC-funded LFG-to-LNG pathway from TIAX, so we would just ask that a pathway document similar to the LFG-to-CNG document be developed from this data. Since TIAX is the official contractor for the LCFS pathway work, it seems logical to use the data TIAX has already developed for LFG-to-LNG.

Lastly, WM has communicated with CARB previously about our concern about the lack of distinction in the LCFS between anthropogenic and biogenic emissions of CO₂. That is, the CO₂ emissions from the combustion of these “biogenic fuels” should be considered part of the near-term carbon cycle. 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 atmospheric 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.

We certainly 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. 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".

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

Sincerely,

A handwritten signature in blue ink, appearing to read "C. White", with a long horizontal flourish extending to the right.

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