

15 December 2014

California Air Resources Board
Wes Ingram, Manager, Fuels Evaluation Section
Chan Pham, Air Resources Engineer
Sent via ksideco@arb.ca.gov

Re: Response to CA-GREET 2.0 Development

Dear Mr. Ingram and Mr. Pham:

Thank you for the opportunity to provide comments to the California Air Resources Board (CARB) regarding its adoption of an updated version of the California-modified Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (CA-GREET) model.

Neste Oil would like to acknowledge the work done by ARB staff to develop the CA-GREET 2.0 Tier 1 tool for conventional biofuels. We regard it as a good concept and we hope that it will expedite pathway approval proses in the future.

Neste Oil's personnel have made some preliminary CI assessments with the draft version of the tool. During this work we have made the following findings:

1. General Comments

- The tool seems relatively easy to use. However, all of the choices that have to be made are not self-evident and could be further explained in the tool. (e.g. choice of crude source: does this relate to the location of the biofuel facility or feedstock origin?)
- On the T1 Calculator tab, thermal energy/total thermal energy use could be changed to boiler/process fuel consumption or something similar. According to our understanding, thermal energy refers to the internal energy of a system or a substance in a certain temperature and not to the energy content of a fuel. In this sense LHV is not a unit of thermal energy. (Thermal energy has no LHV.)

2. Raw Tallow Collection & Transport Included in the CI Value

- this approach differs from biofuel legislation/regulation in many other jurisdictions
- slaughterhouse waste would have to be transported in any case, biofuel production from tallow/animal fat does not increase the need to transport this waste - alternative treatment of raw tallow or animal carcasses would very likely increase the need for transport
- rendering facilities are located near the slaughterhouses to minimize transport costs, emissions due to transportation of slaughterhouse waste (raw tallow) are marginal

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- if raw tallow transportation will be included in the CI value, we hope that biofuel producers would be able to rely on a default transport distance and emissions - minor source of emissions so the efforts of collecting actual data are not well justified

3. UCO to Renewable Diesel

- ARB staff could consider including two UCO pathways, both with and without rendering

4. Corn Oil to renewable Diesel

- We hope that biofuel producers would be able to rely on a default corn oil extraction rate. Corn oil is often sourced from multiple ethanol mills and through traders. Requirement to procure extraction rate data from all corn oil sources would practically lead into insurmountable challenges
- ARB staff could consider including corn oil based on both wet and dry DGS
 - significant difference in the CI
 - based on the supporting document we understand that there will be two corn oil pathways
- We hope that ARB staff would consider including ocean transport for distillers corn oil.
 - this would cater the needs of foreign biofuel producers using corn oils as a feedstock

5. List of potential typos that were identified:

Tallow to renewable diesel thermal energy use,

Tab:T1 Calculator, Cell: B992 = B994*B991/10^6. Should it be: = B995*B991/10^6?

Corn oil to renewable diesel hydrogen input,

Tab: BioOil, Cell: EQ 262 =IF('T1 Calculator'!Q2="Corn Oil Renewable Diesel";'T1 Calculator'!**F1170**;90.1%). Should it be =IF('T1 Calculator'!Q2="Corn Oil Renewable Diesel";'T1 Calculator'!**F1171**;90.1%)?

CONCLUSION

Neste Oil appreciates the opportunity to comment on the re-adoption proposals. Like California, Neste Oil is proud of its continued leadership in producing clean transportation fuel. We look forward to continued participation in the California fuel market and the continued success of the Low Carbon Fuel Standard. Please do not hesitate to contact me if at 713.407.4415 or Dayne.Delahoussaye@NesteOil.com if you have any questions regarding the foregoing.

NESTE OIL US, INC.



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