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Heather E. Pearson
Director, Climate Change Programs Branch
Ministry of Environment, Conservation and Parks
Fergus Block, 10th Flr, 77 Wellesley St W,
Toronto, ON M7A 2T5

RE: ERO number 013-4598 – Increasing renewable content in fuels

We are pleased to submit these comments on the proposed amendments to increase the renewable content in fuels. We are supportive of any measures that will reduce the lifecycle GHG emissions from gasoline and diesel fuel. You have asked for comments on the LCA model that is used in the regulations and most of our comments deal with that issue.

The GHGenius 4.03a model that is specified in the current diesel and gasoline regulations is no longer readily accessible for the public. It is also quite old as far as models go with the last update of the model being performed in late 2012. That update was to the US data in the model. The Canadian data in the model is now almost 10 years old and while the model does automatically update some data through the use of government forecasts and extrapolating historical data, the forecasts that are used in the model have been updated several times and extrapolating 10 years into the future can introduce variations to actual data for some of the time series.

The replacement model, GHGenius 5.0 has over 100 updates to the 4.03a model. It is available for download free from the GHGenius website and it has a much friendlier user licence than all previous versions.

Some of the updates to the model include the most recent National Energy Board power production forecasts for all Provinces, Ontario specific fertilizer application rates for all crops including corn, for the first time actual emission factors for Canadian produced fertilizers.

There are two issues with GHGenius 4.03 that are addressed in the new model. One is that the gasoline combustion GHG emissions are now calculated in a consistent manner to the way that Ontario calculates those emissions in its emission reporting programs. This increases the lifecycle gasoline emissions by about 7 g/MJ. The other major issue is with tallow biodiesel, where GHGenius 4.03a (and all previous versions) relied on data from a National Research Council report that only considered a single plant and, compared to about 40 plants that we now have data for, can only be considered as an outlier.

GHGenius 5.0 now has the capacity for modelling co-processing biogenic and fossil crude oils, and a number of new feedstocks that are becoming commercial. There is additional flexibility for modelling all of the pathways in the model. For example, it is now possible to model an ethanol plant with an onsite anaerobic digestion system as one pathway. Previously this required two separate runs and the final pathway assembled outside of GHGenius.

The new model is a significant improvement over the previous model with more recent data, better quality data, and more pathways and is capable of modelling innovative pathways that have been developed in the past decade.

Sincerely,

Don O'Connor

President