

March 4, 2021

Clean Fuel Standard Team
Environment and Climate Change Canada
351 St. Joseph Boulevard, 12th Floor
Gatineau, QC
K1A 0H3

Via email: ec.cfsncp.ec@canada.ca

Re: Proposed *Clean Fuel Regulation* publication in *Canada Gazette I*

The Canadian Canola Growers Association (CCGA) and the Canola Council of Canada (CCC) have actively participated in the development of the Clean Fuel Regulation (CFR). We appreciate the significant time the CFS Team has spent engaging with us on elements of this proposed regulation. Upon analysis of the proposed regulatory text and based on our interaction with Environment and Climate Change Canada (ECCC) staff, there remain three specific areas of concern that need to be addressed prior to the publication of *Canada Gazette II*, pertaining to:

1. Land Use and Biodiversity Criteria (LUB) and Aggregate Compliance
2. Harvester Declarations, Verification and Site Visits
3. Fuel Lifecycle Analysis (LCA) Model

These three regulatory elements are important to Canada's canola farmers and the entire value chain. Having these clarified in the final regulation, in plain text, will provide greater certainty to industry and leave potential market participants with no room for misinterpretation. Additionally, for crop-based feedstocks, it will allow organizations such as ours to precisely explain to Canadian farmers the mechanics and compliance requirements of the regulation. This will enable the entire Canadian canola value chain to prepare for and be in a position to positively contribute to the functioning of the CFR, upon its coming into force.

1. Land Use and Biodiversity Criteria and Aggregate Compliance

Currently, the draft regulation provides what can be characterized as a 'partial aggregate compliance' approach to satisfying aspects of the LUB criteria, clearly providing an option for jurisdictions with no significant crop land expansion to demonstrate compliance with §38 on an aggregate basis pursuant to §39 or §40.

It also provides separate options for other LUB criteria [protected areas - §35(1), harvest - §36(a), and damaging agents - §36(b)] to be met on an aggregate basis through the recognition of legislation pursuant §42 and §43. However, it remains unclear as to how or if this can be achieved for agriculture stakeholders in Canada and the United States. As currently proposed, this is unnecessarily complex and has introduced significant uncertainty into the regulation, particularly for domestic feedstock producers, amongst other stakeholders.

Providing a ‘full aggregate compliance’ approach is the clearest means for satisfying this regulatory provision. Having this clarity specifically spelled out in the regulation is important to feedstock providers in both Canada and the United States. It also reduces any potential confusion and administrative burden on Provinces and other sub-national jurisdictions as it relates to explicitly identifying and cataloguing existing legislative and regulatory frameworks.

The Canadian government has previously recognized the complexities of listing legislation related to land use and biodiversity in its original petition to the United States Environmental Protection Agency (EPA) to meet the *Renewable Fuel Standard 2* (RFS 2) requirements for aggregate compliance:

*“Canada and its provinces and territories have numerous laws, regulations and policies that influence land use and that may limit expansion of agricultural lands. **It would be challenging to identify all applicable laws** [emphasis added] and analyze their impacts, particularly with respect to the 10 provinces and three territories within Canada in addition to legislation in force at the municipal level.”¹*

In its petition, the government of Canada was successful in demonstrating that the overall legislative and regulatory landscape in Canada supports an aggregate compliance approach for Canadian feedstock, without the need for identifying and cataloguing all existing legislation.

Adopting a similar approach for the purpose of demonstrating full aggregate compliance under the CFR allows for the regulatory architecture to achieve its policy goals, while enabling domestic feedstock providers (and the value chain) to participate in the biofuels supply chain with no reservations as to LUB compliance issues. This also directly works to diminish any potential trade irritants with the United States as it is a known and proven approach. Importantly, in so doing, this should not imperil Canada’s current compliance with the EPA RFS 2 aggregate compliance provisions. Canada is the only country to have been granted this designation and has proved, on an annual basis, compliance with its provisions for a decade.

Recommendations:

- **That both Canada and the United States clearly see their existing legislation / regulations recognized for the purpose of the CFR.**
- **ECCC work with Agriculture and Agri-Food Canada to undertake an analysis of the legislative / regulatory landscape for the relevant LUB criteria and establish a process that would help confirm aggregate compliance.**
- **Aggregate compliance provisions for LUB criteria be clearly streamlined under a single section of the regulations, providing a ‘full aggregate compliance’ approach.**
 - This can be achieved by incorporating relevant sections of the LUB requirements and aggregate compliance options (§35, §36, §38, §39, §40, §42, and §43) into a single “deemed approval” section.

¹ Supplemental Information on Canada’s Aggregate Compliance Approach Petition. (August 21, 2011).

2. Harvester Declarations, Verification and Site Visits

The proposed regulation requires the use of declarations to confirm eligibility of feedstock to the LUB criteria and to track / trace the feedstock through the supply chain. The contents of the declaration and subsequent verification requirements, including on-site visits of the harvester (farmer), are also prescribed in the regulation.

Our industry has serious concerns with these requirements and question its rationale if a jurisdiction meets all the required LUB criteria (§35, §36, §38) on an aggregate basis.

The need for declarations and potentially burdensome verification obligations appear to contradict with an earlier statement published in the Clean Fuel Standard Annex published as a part *A Healthy Environment and Healthy Economy* plan, which states that:

“If a country shows that there has been no net land use expansion, there will be no need for individual farmers or foresters to undertake any further action.”²

We are of the understanding that any jurisdiction meeting the LUB criteria on an aggregate basis may not be subject to the same declaration requirements (e.g. declaration content) prescribed in the draft regulations, but that documentation is still necessary for the purpose of tracking and verifying feedstock origin. This needs to be clarified, with the goal of balancing the policy intent with the ease of operationalization in practice. If indeed there is flexibility within the declaration requirement, it is critical to understand what this might look like and ensure the regulations are updated to reflect this.

Furthermore, if the declaration requirement can be simplified for feedstock originating from jurisdictions that are deemed to meet the aggregate compliance provisions for LUB, some of the proposed verification requirements would be redundant, especially site-visits of the harvester. The regulation should be updated to provide an exception to on-site visits for harvesters of feedstock that comply with the LUB on an aggregate basis.

Recommendation - Declarations:

- **Streamline the required information with existing documentation that allows for tracking and tracing of feedstock, rather than creating an additional standalone document.**

- This can be achieved by the following modification to the current proposed regulatory text:

50(1)(n) in the case of a quantity of feedstock that is a crop, crop byproduct, crop residue or short rotation woody biomass crop, a declaration of any amount and type of feedstock that does not satisfy the requirements of section 37;

- And the addition of the following new clauses to the proposed regulatory text:

50(2)(a) A declaration made by a harvester cultivating in a jurisdiction with an approval under sections 39 or 40 and recognized legislation by the Minister for sections 42, 43, and 44, must only include the information set out in sections 50(1) (a), (b), (e), (f), (q) and (r) and, if required, the information set out in [amended] section 50(1)(n).

² *A Healthy Environment and a Healthy Economy* (December 11, 2020). Annex: Clean Fuel Standard – Liquid Fuels, p. 4.

50(2)(b) Existing purchase and sale agreements used to transfer ownership of a crop, crop byproduct, crop residue or short-rotation woody biomass crop, or other comparable documentation, are deemed to be a declaration for the purposes of section 50(1) if they include the information specified under section 50(2)(a).

Recommendation – Site Visits:

- **Clarify that site visits to individual farms, for the purposes of evidence-gathering for verification is not required if the farmer has made a declaration as proposed in 50(1) and is deemed to be in compliance on an aggregate basis.**

- This can be achieved by the following modification to the current proposed regulatory text:

140(2)(b)(i) a farm that is the point of origin of the feedstock referred to in the report, unless an eligible declaration is made under 50(1) for the period of cultivation.

3. Fuel Lifecycle Analysis (LCA) Model

The Fuel LCA Model and the carbon intensity (CI) scores for biofuels derived from different feedstocks is fundamental to the efficacy of the CFS. It will form an integral component of a functional regulation: investment decisions and compliance strategies by all CFR participants (low carbon intensity fuel producers, feedstock supply chain participants, primary suppliers, voluntary parties, etc.) all hinge on the output of the Fuel LCA Model.

At present, we understand that the Fuel LCA Model will not be made available to all stakeholders until the release of the final CFR in late 2021. We reiterate the importance of having a functional Fuel LCA Model that is as developed and accurate as possible when final regulations are released.

Recommendations:

- **ECCC form the Steering Technical Advisory Committee (STAC) prior to the release of the Fuel LCA Model in fall 2021.**
- **ECCC incorporates STAC input into a model revision process that occurs in early 2022, if necessary.**

3.1 Allocation within the Fuel LCA Model Methodology

A major issue for the treatment of canola within the Fuel LCA Model methodology is the choice of allocation methods employed. The Fuel LCA Methodology document states:

Energy content is the default allocation approach. Indeed, in fuel production systems, energy content, also known and referred to as the heating value, is generally recognized as the most appropriate metric. In situations where energy content allocation is not applicable, either the mass allocation or the system expansion (also called displacement) approaches were applied.³

³ *Fuel LCA Methodology* (2020). Environment and Climate Change Canada. p. 18.

We contest the validity of this statement. There is no general recognition that energy allocation is the most appropriate measure. The ISO LCA guidelines state that allocation should be avoided if possible and that a physical relationship such as mass or energy should be used only if allocation cannot be avoided. In the LCA work done by the US EPA for the RFS2 program, a consequential approach was used to avoid allocation. This approach raises a number of other issues and is not always practical. In both the California GREET model and the British Columbia LCFS program, displacement is used for the ethanol production pathways. Both of those programs use allocation by mass for oilseed crushing emissions.

The use of energy allocation for biofuel production pathways will produce results that are very different for biodiesel, renewable diesel, and ethanol pathways than all of the other North American programs. It is only the European Union RED that uses mostly energy allocation and even that program uses the displacement approach for some co-products.

Additional comments on the LCA methodology can be found in the attached Appendix.

Recommendation:

- **ECCC use a ‘mass allocation’ approach for oilseed crushing allocation.** This is rational because the co-product (canola meal) is used as livestock feed primarily for its protein content and not for its energy content. It is priced on a protein basis in the market where protein products (oilseed meals) sell for much more than energy products (corn and barley).

The Canadian canola industry sees the CFR as an opportunity. Addressing the above noted issues will work towards implementing a regulation that enables our industry to contribute to the achievement of the overarching policy goals of the CFR.

Sincerely,

Original signed by

Rick White
President & CEO
Canadian Canola Growers Association

Original signed by

Jim Everson
President
Canola Council of Canada

CC: Paola Mellow, Executive Director, Low Carbon Fuels Division, Environmental Protection Branch
Lorri Thompson, Manager, Clean Fuel Standard, Environmental Protection Branch
Dave Carey, Vice-President, Government and Industry Relations, CCGA
Brian Innes, Vice President, Public Affairs, CCC

Appendix: Comments on LCA Methodology Document

1. Land Management Changes

The Fuel LCA Model is to calculate the change in soil carbon from land management changes. This is not the same as direct land use change as stated in the documentation. There are three components to this, a reduction in summerfallow, a reduction in tillage, and changes from cropping transitions between annual and perennial crops. The summerfallow and changes in tillage are straightforward. The annual to perennial emissions are less straightforward and can be significantly influenced by the temporal and geographic scale for which the data is available.

ECCC should note that the annual to perennial (and vice-versa) transition is a common practice on an individual farm and only looking at half of the transition (from annual to perennial) does not capture the change in soil carbon for the entire farm's activities. This can only be captured if the net change in annual to perennial and perennial to annual crops is captured. This type of 'net practice' data was included in the CRSC report at the Reconciliation Unit (RU) level. This can be transposed to the provincial level for the Fuel LCA Model.

There has been a trend for less perennial area in central and eastern Canada and more in western Canada in response to the gradual shift of the livestock sector westward resulting from the removal of subsidized freight rates for feed grains. The freight rate subsidization was initiated during the Second World War to facilitate meat production that could be more easily transported to Europe. This subsidy approach was not removed until the 1990's. Since its removal, the livestock industry has gradually moved west, resulting in transition of perennial area to annual in the east and the reverse in the west. The current approach of including emissions from 'Perennial to Annual' should be modified to also include 'Annual to Perennial' as well, as this will accurately reflect the increases in perennial crops in western Canada.

On a national basis the gains and losses are very close to each other most years. If the data was presented on a national level, the value would be close to zero. If the values are calculated on a net basis at the provincial level, there will be losses in the eastern half of Canada and zero values in the west. Including only soil carbon losses at the provincial level gives the least accurate overall view of changes in soil carbon.

2. Global Warning Potentials (GWPs)

All other regulatory programs in Canada uses the GWPs from the IPCC 4th Assessment Report (the AR4 values). There does not appear to be a rationale provided for using the values from the 5th Assessment Report (AR5). One of the issues with the 5th Assessment Report is that two sets of values are provided: with and without carbon-climate feedback. The Fuel LCA Model will take emission factors from a wide range of sources and the different 5th Assessment Report values will be used in the different sources, resulting in a mixture of values being reflected in the Fuel LCA Model. If the goal of the CFS is to reduce the Canadian GHG emissions by 30 MT, calculating the CFS reductions using the 5th Assessment Report and comparing it to the national emissions calculated with the 4th Assessment Report values will produce inappropriate results.

3. Feedstock Moisture Contents

Most of the data that is collected in the biofuel industry is done on the basis of actual weights. There is no need to actually track the moisture content for most of the calculations. There is a comment in the report

about scaling up the weight of grain transported for the moisture content. This is not required if actual weights are used. All of the CRSC data is on an actual weight basis. Introducing dry weight will can confuse users and lead to errors.

4. Fuels used in Transportation

Most gasoline and diesel used in Canada today contains a renewable fraction and that fraction is likely to increase as time passes. The fuels used for transportation should reflect this and not assume that it is 100% fossil fuel with no renewable component.

5. Data Uncertainty

While the section of the Fuel LCA Methodology document on data quality is valid, it is not clear the role this concept plays in the Fuel LCA Model that must generate a point value for regulatory purposes. Data uncertainty is an issue from an academic perspective and for secondary data used for model development. In the Fuel LCA Methodology document it is stated that:

Users of the Fuel LCA Model have both options described above to enter information about uncertainty for each parameter. For example, an LCIF producer that builds a pathway model for pyrolysis of wood residues may be able to provide a minimum and maximum bio oil yield from the process, or a minimum and maximum electricity input value. In instances where data cannot be provided on known distributions users can define distributions based on DQI scoring using the pedigree matrix described above.

Data uncertainty for primary data (collected and produced by a fuel producer) is a very different issue. Low carbon intensity fuel producers should have real data to enter into the model that is collected over a representative time period. Inputs of maximum and minimum yields or process inputs do not provide the quality of data that is required for proper modelling. Even if producers did have max and min values it is highly unlikely that they would have any information on the distribution of the data. Based on our understanding of the approach to be used, producers would be able to calculate their inputs to the Fuel LCA Model that cover a specified time period, thereby having the resulting number incorporate any variation that may be encountered. We understand this approach to be sufficient.