

Fourteen organizations and individuals submitted comments on the proposed First Edition of Biodiesel Guidelines from the Worldwide Fuel Charter (WWFC) Committee. All comments were carefully reviewed and considered. For brevity, the following discussion has been organized by concept rather than by individual comments. Several helpful editorial and technical corrections were adopted but are not described in this document. For reasons of confidentiality, the individual commenters are not identified. As with the WWFC, the Biodiesel Guidelines represent recommendations for a global market, and as such, may differ from the standards of any particular country or location.

General Comments on the Biodiesel Guidelines

- Comment: The scope should include other renewable fuels for compression ignition engines.
- Response: While other renewable fuels are being developed, methyl ester fuels are already being produced and distributed worldwide today in significant quantities. The Committee decided to make methyl ester blendstocks the focus of these Guidelines.
- Comment: The inclusion of finished fuel (B5) properties conflicts with the Guidelines' scope of B100 for blending.
- Response: The Guidelines are for B100 to be blended in B5 and lower blends. In certain places in the text, however, the Committee has identified certain areas that relate to both B100 and finished fuel specifications.
- Comment: The Guidelines include too many parameters and taken in total are more restrictive than any individual regional requirement.
- Response: The Guidelines are intended to provide information regarding all parameters that are involved in defining a quality blendstock. Certain parameters may not be applicable to specific regions.
- Comment: The Guidelines should include recommendations regarding anti-oxidant usage rates that will provide stability without over additizing.
- Response: The type and amount of anti-oxidant required vary depending on the feedstock, production process and other variables; therefore, it is impractical to recommend specific usage types and rates.
- Comment: The Guidelines include overlapping and potentially conflicting requirements regarding ester components and stability.
- Response: The Guidelines are intended to provide information regarding all parameters involved in defining a quality fuel. Certain parameters may not be applicable to specific regions, but if the Guidelines are met overall, worldwide B100 distribution would be facilitated.
- Comment: The proposed oxidation stability limit is too stringent, and the requirement exceeds the requirements in major regional standards.

- Response: Fuel production, storage, use and climate vary significantly around the world. The Committee established the Guidelines to apply to engines and vehicles over this wide range of conditions.
- Comment: The proposed inclusion of change in TAN (delta-TAN) for the finished blend conflicts with the Guidelines' scope and does not add value.
- Response: Delta-TAN is not included among the recommended B100 limits. The Committee is very concerned with finished fuel stability, however, particularly when the fuel is stored for extended periods, as is common in some regions. The text discusses delta-TAN to increase awareness and educate fuel distributors and users of the potential for using this property and method to evaluate finished biodiesel fuel blends.
- Comment: The inclusion of a limit for Iodine Number and the note regarding differing opinions is confusing and potentially misleading.
- Response: The Committee determined that inclusion of a limit value combined with the note was the best way to accommodate conflicting information available at this time.
- Comment: Flash point is neither required nor appropriately set, based on regional safety and transportation regulations.
- Response: The specified limit provides an appropriate safety guideline. That said, it is not intended to, and does not, supersede local regulations.
- Comment: The proposed limits for water, water and sediment, and total contamination are overlapping and potentially incompatible.
- Response: Different regions have different testing capabilities. Although separate limits for water and contamination are preferred, the Committee has recommended a combined water and sediment limit for regions where separate analysis is not available.
- Comment: The proposed limit for ash is not required or supported by the prescribed test method.
- Response: The proposed limit is designed to address known problems that higher ash levels cause with diesel particulate emission controls. Although the Committee is aware of deficiencies in the prescribed test method, it also is aware that enhancements to the method are available that allow for adequate testing.
- Comment: The proposed limits for alkali and alkaline metals are not required. Their influence is controlled by the specified ash limit.
- Response: Alkali and alkaline metals are known to increase fuel injector deposits independent of their influence on ash content.

Comment: The proposed limit for phosphorus is not required or supported by the given test method.

Response: The proposed limit is designed to address problems that higher phosphorus levels cause with exhaust emission control systems. Although the Committee is aware of deficiencies in the prescribed test method, it also is aware that enhancements to the method are available that allow for adequate testing.