

AAA response to:
National Fuel Quality Standards – Biodiesel
Discussion Paper No.6

Australian Automobile Association

The Australian Automobile Association (AAA) welcomes the opportunity to make a submission to the Department of the Environment and Heritage, Environment Australia Fuel Quality Review, Paper 6, National Standards for Biodiesel.

The AAA is the Federal representative of the State and Territory motoring clubs, its members being the;

- NRMA Limited
- Royal Automobile Club of Victoria (RACV) Ltd
- The Royal Automobile Club of Queensland Limited.
- The Royal Automobile Association of South Australia, Inc
- The Royal Automobile Club of Western Australia, (Incorporated)
- The Royal Automobile Club of Tasmania
- Automobile Association of Northern Territory Inc. and
- Royal Automobile Club of Australia.

The AAA represents over 6 million motorists, being the total membership of these clubs and associations.

There is no doubt that in order to achieve Australia's air quality goals, significant developments are needed in motor vehicle emissions and control technology. These developments can only be introduced if suitable fuel is available to enable proper and consistent functioning of the technologies.

General Principles on Fuel Standards

The AAA supports the introduction of fuel quality standards, and the accompanying vehicle engine emission standards aimed at reducing gaseous emissions provided there is no adverse impact on motorists in terms of:

1. Cost of fuel. Any standards that increase minimum octane rating should result in no net increase in cost to motorists. That is, any increase in production costs should be offset by an increase in energy content of the fuel. The AAA does not support an increase in excise rates on existing fuel to encourage the production of alternative fuels.

2. Fuel efficiency and vehicle operability. Standards that result in the introduction of fuels in which these parameters are lower than the existing equivalent fuel must be accompanied by appropriate consumer awareness campaigns to allow motorists to make an informed choice.
3. Fuel availability. Elimination or significant reduction in the availability of a fuel type required for the effective operation of any vehicle in the existing fleet is not acceptable.

The introduction of improved fuel standards should be included in legislation, such as the Fuel Quality Standards Act. This legislation should set the minimum standards and the maximum timeframe for introduction.

The Federal Government should encourage early introduction of improved fuels through the provision of incentives, such as excise relief, for the environmentally better fuel rather than disincentives, such as occurred when additional excise was applied to leaded fuel. AAA opposes the imposition of increased excise rates on existing fuels in order to fund the introduction of new fuels on the basis that it unfairly shifts costs onto the consumer.

Principles in Relation to Biodiesel in Particular

Given some of the benefits of biodiesel outlined in the discussion paper, including its biodegradability and emissions performance, the AAA supports the introduction of a biodiesel standard. Furthermore, the biodiesel that is currently sold in the unregulated market does not need to meet a standard. Consequently, it may not deliver the benefits identified and may actually be harmful to consumers, vehicles or the environment.

Experience with the introduction of other alternative fuels, including ethanol blends, indicates that its successful introduction into the marketplace will depend strongly on maintaining consumer confidence in the product. Consumer confidence is linked to two factors:

- The technical integrity of biodiesel products offered for sale in Australia, and
- Motorists' understanding of its purpose, application and benefits.

AAA therefore:

- Supports in principle the introduction of a national biodiesel fuel quality standard, whether developed specifically for Australia or by harmonising with a suitable existing international standard,
- Recommends that such a standard manage each of the concerns and issues described in the Paper, including setting performance requirements for emissions, operability and durability effects on diesel engines.

- Believes that performance requirements for biodiesel emissions must match those for conventional diesel in overall terms, and predominantly in the case of each specific measurement,
- Believes that performance requirements for biodiesel operability must match those for conventional diesel,
- Supports compulsory labelling of biodiesel content on diesel pumps, in order to assure consumer confidence in the product.

The above statements summarise the AAA position on fuel quality standards. The questions asked in each chapter of the Discussion paper are considered below in context of the AAA position.

Section 2 Background

What is your view on the need to develop a mandated national fuel quality standard for biodiesel?

AAA supports the use of biodiesel as a method to help reduce emissions and dependency on fossil fuels. A mandated national fuel quality standard for biodiesel, that substantially matches the standard applicable for diesel, is necessary to ensure that;

- The fuel is suitable for use in diesel engined vehicles in Australia.
- Vehicles continue to comply with the relevant emissions standards, That is, both existing and future standards.
- There is a “level playing field” for diesel producers.

What is your view on harmonisation of any Australian biodiesel standard with European and/or US biodiesel specifications?

AAA supports the policy of harmonisation of fuel standards with the applicable European or US standards. Most imported vehicles are also sold in either Europe or the US. Consequently, harmonisation with the European and US biodiesel standards will allow importation of a range of modern fuel efficient, low emission diesel vehicles.

Section 3 Biodiesel

Do you consider that an Australian standard for biodiesel should prescribe feed stocks or production technologies, or should the standard only address characteristics and composition of biodiesel?

The Australian standard needs to focus on the performance parameters of biodiesel, similar to other fuel standards, to ensure the environmental and vehicle operability outcomes are met. AAA recognises that the feedstock used is a major factor in the

energy content of biodiesel. If the standard does prescribe feedstock or production technologies the main focus should be on improving the energy content of biodiesel.

Additionally, any standard prescribing feed stocks and/or production technologies should give consideration to reducing detrimental environmental impacts (e.g. waste by-products) from the production of biodiesel. While this is not a primary function of a fuel standard it will need to be considered by the relevant local EPA and planning authority.

Section 4 Impacts of Biodiesel Use

Do you wish to comment on any aspects of the impacts of biodiesel use raised in this chapter?

The AAA supports the use of environmentally friendly fuels and this chapter has shown that biodiesel and biodiesel blends would have environmental benefits. While the use of biodiesel or biodiesel blends should not compromise any of the environmental standards there may be opportunity for some leeway where a lower performance in one area can be compensated by gains in other environmental areas (e.g. higher NOx emissions offset by reduced particulate emissions).

There is also a major disadvantage with lower energy content (10%) than diesel leading to reduced fuel efficiency. This leads to the issue of relative amount of emissions from an engine operating on biodiesel on a tonne of freight carried per km basis (on the assumption that the majority of diesel is used for goods carrying vehicles). Is the data presented in Section 4.1 based on on-road operation or is it purely a direct comparison of emissions as would be measured in a laboratory test?

Vehicle manufacturers need to be contacted for advice on the impact on biodiesel and biodiesel blends on their vehicles. Section 10 of the Discussion Paper outlines the potential for damage to vehicle components and voiding warranties if biodiesel blends beyond that recommended by the vehicle or engine manufacturer is used. Consequently, consumer awareness campaigns (e.g. labelling of fuel bowsers) must be undertaken.

Section 5 Biodiesel Blends

What are your views on biodiesel blends?

Any biodiesel blend must meet the standards for diesel to ensure continued vehicle operability and that emission standards are met. Ideally, the standards for biodiesel would exceed the existing operability and emission standards for diesel fuel.

Section 6 Biodiesel Parameters

All standards and test methods used should be aligned, wherever possible, to existing national and international standards to ensure the outcome of continued vehicle operability and emission standards are met.

Section 7 Alcohol

Stakeholders are asked to comment on the issue of alcohol feedstock for the production of biodiesel and impacts on vehicle emissions and engine operability.

As previously stated the AAA is primarily concerned with any degradation in vehicle operability and emissions. Any degradation in vehicle operability must be accompanied with a public awareness campaign (e.g. labelling at fuel pumps) to allow consumers to make an informed choice. Development of any standard for biodiesel that results in degradation in vehicle emission standards (that is, lower standard than for standard diesel) is not supported by the AAA.

Specifically stakeholders are asked to comment on the need, if any, to specify the alcohol that is used to produce biodiesel (as in the EU standard).

Specification of the alcohol used to produce biodiesel is only required if it cannot be controlled via the specification of the final parameters. In this case, the specification of an alcohol must be based on environmental and vehicle operability grounds.

Section 8 Technical Analysis of the Impacts of Blending Biodiesel with Diesel

Stakeholders are requested to comment on the impacts of blending biodiesel with diesel on engine operability and vehicle emissions.

The information provided by vehicle and engine manufacturers in Section 10 of the paper indicates that a biodiesel blend of up to 5% (B5) is the only suitable blend for Australia. This section should be revised to address the implications of a B5 blend.

Section 9 Effect of Biodiesel on Diesel Engine Oil

Stakeholders are requested to comment on the impacts of biodiesel on diesel engine oil.

The information provided by vehicle and engine manufacturers in Section 10 of the paper indicates that a biodiesel blend of up to 5% (B5) is the only suitable blend for Australia. This section should be revised to address the implications of a B5 blend.

Section 10 Vehicle Warranties and Labelling

Stakeholders are requested to comment on the issue of biodiesel warranties for use in vehicles in Australia.

While it is more appropriate that vehicle manufacturers comment on the implications of biodiesel use on vehicle warranties the introduction of a biodiesel standard must consider the implications of vehicle operability over the longer term not just during the vehicle warranty period. Any biodiesel introduced must be within parameters that vehicle and

engine and component manufacturers consider acceptable for continued operation of their products.

Stakeholders are requested to comment on the issues relating to the suitability of current infrastructure, or any requirements for specialised infrastructure, for the use of biodiesel.

AAA considers that all blending must be undertaken at the terminal and then the usual distribution network will be used, therefore no specialised infrastructure would be required. Additional fuel storage and distribution facilities may be required as fuel producers and retailers would also need to continue to supply diesel for those consumers who chose not to use biodiesel.

Stakeholders are invited to comment on the case for labelling of biodiesel/diesel blends and what information would be relevant to the end-user.

AAA supports the case for labelling of biodiesel/diesel blends at fuel bowsers. The label must contain the following information;

- Proportion of biodiesel in the blend, That is, B5, B10.
- Warning about increase in fuel consumption (if applicable).
- Warning on implications for vehicle operability (if applicable).
- Warning on implications on warranty of vehicle.

Ideally, the label would contain a list of vehicles that the manufacturer has indicated is suitable for operation on various blends of biodiesel, e.g. similar to table 10.2.