Shell Comments on Proposed Standard for Fuel Parameters (Biodiesel) Commonwealth Position August 2003

Introduction:

Shell agrees with the overall rational and objectives in setting a biodiesel fuel quality standard. We support the harmonisation of the Australian standard with international standards and note that the proposed standard is broadly in line with the draft EU specifications (with some minor differences).

As stated in our previous comments on Paper 6, National Standard for Biodiesel we would support this stance in view of the substantial amount of work that has gone into developing the EU biodiesel standard, prEN14214. Also the light duty and heavy duty diesel vehicle fleet in Australia consists of a large number of European sourced vehicles, while the Japanese and Asian vehicle makers tend to follow the European lead. In addition the Fuels Standard, both diesel and petrol are being harmonised towards the European fuels specifications EN590 and EN228. We believe it is appropriate that the Australian Biodiesel standard does harmonise with the European biodiesel standard in order to avoid any negative side effects and also protect the vehicle fleet. We would recommend that the specification for Iodine Value, which is part of both the EU and US biodiesel specification, be included in the Australian biodiesel specification.

Shell supports:

- All biodiesel must meet the Australian Biodiesel standard (which is based on the prEN14214 standard).
- Biodiesel must meet the Australian biodiesel standard but the type of biodiesel is not limited to specific oil feedstock.
- Diesel blends containing less than 5% biodiesel (biodiesel portion must meet the Australian Biodiesel standard) do not need to be labelled, BUT the blend must conform to the Australian Fuel Standard (Diesel Determination).
- The Fuel Standard (Diesel Determination) should be amended to allow the addition of up to 5% approved Biodiesel component.
- If the biodiesel concentration used in diesel blends is above 5% labelling and information must be made available. We would expect that blends containing greater than 5% biodiesel would be suited to niche markets for customers who understand the usage requirements for biodiesel. They may have equipment with known suitability and OEM approval for the fuel.
- The use of fatty oil glycerides should be specifically excluded from the Biodiesel specification at any blending concentration.

Standard Specification Limits:

Sulphur: comments in the Commonwealth position paper say that the proposed sulphur specification is slightly tighter than US specification, but not as stringent as the European specifications. However, it is our understanding that the EU standard does not propose a specification for sulphur.

Acid Value: We would recommend that the maximum limit adopted for Acid value is the same as for prEN14214, which is 0.5 mgKOH/g.

Iodine Value: We would recommend strongly that the European specification be adopted for Iodine Value in the Australian specification. Both the US and Europe have set limits for Iodine Value. We would recommend that the maximum Iodine value should be 120 in line with prEN14214. Iodine value reflects the content of unsaturated acids in FAME and a high iodine value is correlated with poor stability and high tendency for sludge formation.

Linolenic Acid methyl ester: We would also recommend that European specification of <12% m/m, for linolenic acid methyl ester be included in the Australian specification for biodiesel. This parameter was included in the EU specification because it was recognised that the stability of the linolenic acid methyl ester was particularly poor even at moderate concentrations.

Biodiesel Blends:

We fully agree with the Commonwealth proposal to set a quality standard that applies to neat biodiesel, and that biodiesel that will be used neat and biodiesel that will be used as a blend stock extender with automotive diesel must meet this standard. However we would recommend for blends containing less than 5 % biodiesel, that the final **fully blended** biodiesel-automotive gas oil product **must** meet the Fuel Standard (Diesel Determination).

For biodiesel blends where the biodiesel concentration is above 5%, then the automotive diesel portion must meet the Fuel Standard (Diesel Determination) and the biodiesel portion must meet the Australian Biodiesel specification.

Labelling:

We fully agree that biodiesel/Diesel blends that contain less than 5% biodiesel component do not need to be labelled.

We also agree that, for blends containing greater than 5% biodiesel, labelling should be a requirement. In addition to the requirement to provide information on the effect on fuel economy, and to seek advice from the equipment manufacturer, it may be advisable to highlight various other issues that may result from using these fuels that would be noticeable to the customer. These issues could be: reduced power, exhaust smell, poor cold flow performance.

Feedstock:

We agree that the biodiesel standard should not restrict the type of feedstock used to produce the biodiesel. However, it should be noted that different types of FAMEs do have different properties. While the use of up to 5% FAME in diesel is accepted by Shell, this acceptance is based purely on the use of RME-5 in France.

Provided the Fatty Ester meets the well-specified Australian biodiesel standard (based on prEN14214) and the B5 blend conforms to Fuel Standard (Diesel Determination), then we should not need to restrict the biodiesel to be sourced from certain feedstocks or produced by certain processes.

Thank-you for the opportunity to comment on the Proposed Standard for Biodiesel.