

Department of the Environment and Heritage
Atmosphere and Sustainable Transport

12th August 2003

GPO BOX 787
Canberra ACT 2601
Attention Mr Daniel Sheedy

National Fuel Quality Standards – Biodiesel

Discussion paper 6

Sir,

Thank you for the opportunity to review and comment on the proposed Standard for Biodiesel Fuel Parameters – August 2003.

Gilbarco Australia Limited views the standard as an essential requirement for the industry and sees no problems with the properties as specified being formalised as a regulatory or legislated requirement to insure a standard fuel quality. (This is something that is missing from other fuels used in the petroleum industry.)

However the concerns expressed in our previous response of 26th May related to the possible unknown effects on storage and dispensing equipment in the areas of metrology and maintenance during both change over periods, from traditional fuels, and after long term usage remain.

Our concerns in general are related to issues as follows:

- Some metering equipment, particularly (but not only) older installed equipment contain brass parts which is known to be adversely affected by Biodiesel.
- Some seals and materials used in pumps, flow control valves, pipes, hoses, deliver nozzles and underground tanks as well as with moving parts of meter may be affected. From company experience, Viton is a preferred material for use with Biodiesel. It is known that some materials that have been in common use in the industry are not suitable for use with Biodiesel.
- Biodiesel has a slightly higher viscosity, density and is more lubricious than traditional diesel fuel and does not foam. The effect that this will have on the range of existing pattern approved metering and air separation systems in dispensers is unknown.
- Biodiesel is a 'scrubber' agent and will have a cleansing effect if used with tanks and equipment previously used with other fuels. This may result in loosening plaque (fossil diesel residue) that will lead to the blocking of orifices and capillaries and clogging of filers.

Gilbarco has had discussions with the National Standard Commission (NSC) and the NSW Department of Fair Trading. These authorities confirmed that existing approved dispensing equipment had NOT been formally tested (with Biodiesel) and that the future Approval and Certification of equipment for Trade with Biodiesel would be; a) for NSC, based on equipment manufacturers assurance that the fuel "behaves" the same as petroleum based diesel for air separation, and b) for the Department of Fair Trading, that the delivery system remains calibrated within allowable limits.

Neither authority has a vested interest in any potential maintenance issues. To date no equipment has been approved by NSC for general use with Biodiesel.

In order to gain first hand knowledge of the effects of Biodiesel, with some existing approved equipment, Gilbarco is planning to take part in a formal trial over a 6 months period from September this year. The trial is to be conducted by the Camden council using dispensing equipment not used for resale to the public. It will be conducted using two council garbage trucks, one as a control, operated with traditional diesel, and one as the unit under test, operated with Biodiesel. The trial will be run in conjunction with Pacific Air and Environment and with the cooperation of the Australian Biodiesel Consultancy organization.

Gilbarco's participation in this trial, in supplying the dispensing equipment and monitoring of the Pumping, Air Separation and Metering equipment throughout the period of the trial, will provide valuable data that would allow us to further comment on the areas that remain of concern to us as manufacturers and suppliers of Approved equipment and Service contracts. The results could also allow the current position of the NSC and certifying authorities to be confirmed as "appropriate", or otherwise.

As the introduction of Biodiesel is anticipated to be a substitute for the petroleum based diesel products it is unlikely to result in additional new equipment requirements and will generally utilise existing equipment. Gilbarco therefore believes that the testing required to confirm the metrological performance of metering equipment and effect on the other storage and distribution equipment should be funded by the Government bodies or those benefiting from the development and sale of the product.

Gilbarco is enthused by the pending issue of the Standard for Biodiesel and has expectations that this will allow future equipment to be designed and manufactured with this 'new' fuel in mind.

If possible, at this time, could you advise how compliance to this standard will be assured?

I look forward to receiving your response to my questions and any comments your department feels appropriate.

Yours Sincerely,



Rino de Fazio

Manager Engineering and Service Support

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