EXPLANATORY STATEMENT

Fuel Quality Standards Act 2000

Fuel Standard (Biodiesel) Amendment Determination 2009 (No. 1)

(Issued by the authority of the Minister for the Environment, Heritage and the Arts)

The *Fuel Quality Standards Act 2000* (the Act) and the *Fuel Quality Standards Regulations 2001* provides the framework for making and enforcing national fuel quality standards.

Section 21 of the Act provides that the Minister may, in writing, determine that specified matters constitute a fuel standard in respect of a specified kind of fuel.

A standard for biodiesel – contained in the *Fuel Standard (Biodiesel) Determination 2003* (the Biodiesel Determination) – commenced on 18 September 2003. This standard specifies physical and chemical parameters which must be met before biodiesel can be supplied for use in Australia.

The Biodiesel Determination, sets out testing methods used by the Department of the Environment, Water, Heritage and the Arts (the Department) to determine compliance with the determination. Some substances and/or parameters have multiple testing methods assigned to them. This is an artefact of establishing the standard and the uncertainty, at the time, relating to what test methods laboratories would use to determine compliance.

The *Fuel Standard (Biodiesel) Amendment Determination 2009 (No. 1)* (the Amendment Determination) will amend the test methods to reflect those currently used by the Department's contracted laboratory. This is consistent with the approach taken with respect to other fuel standards (Petrol, Automotive Diesel) made under the Act. The test methods specified in the Biodiesel Determination, and other standards under the Act, are those that the Department uses to determine compliance. Producers of biodiesel are not bound to these test methods and may choose alternative test methods.

The Biodiesel Determination also refers to preliminary or draft test methods that have now been finalised. These are denoted by a "pr" prefix. To ensure that the Biodiesel Determination is up to date and correct these prefixes will be removed.

The amendments set out in the Amendment Determination are machinery in nature, involving technical changes. These changes will ensure that the Biodiesel determination can be administered effectively.

The Minister must have regard to the objects of the Act before making a Determination as required by section 21(5). The main object of the Act is to regulate the quality of fuel supplied in Australia in order to:

(a) reduce the level of pollutants and emissions arising from the use of fuel that may cause environmental and health problems;
(b) facilitate the adoption of better engine technology and emission control technology; and
(c) allow the more effective operation of engines.

These amendments are in line with Australian Government objectives to harmonise with international fuel standards for biodiesel and are consistent with meeting the objectives of the Act.

Details of the Amendment Determination are set out in Attachment A.

The Amendment Determination is a legislative instrument for the purposes of the *Legislative Instruments Act 2003*.

The Amendment Determination takes effect on the day after it is registered.

Attachment A

Fuel Standard (Biodiesel) Amendment Determination 2009 (No. 1)

Section 1 – Name of Determination
This section provides that the name of the determination is the *Fuel Standard (Biodiesel) Amendment Determination 2009 (No. 1).*

Section 2 – Commencement
This section provides that the determination commences on the day after it is registered.

Section 3 – Definitions
This section provides detail, in Schedule 1, on the amendments to the *Fuel Standard (Biodiesel) Determination 2003*.

Schedule 1 – Amendments

Item 1 – Section 3, definition of Energy Institute
This item removes reference to the Energy Institute. This reference was used in relation to explanation of IP test methods. IP test methods will no longer be referred to in the determination (see Item 4) therefore there is no need to define Energy Institute.

Item 2 – Subsection 4 (1), table, item 4
This item removes reference to Carbon residue - 100 per cent distillation sample. The determination currently specifies a Carbon residue limit of either 10% via distillation residue or 100% via distillation sample with relevant limits and test methods. The Department has been advised that the detection limit for 0.050% mass max by 100% distillation is unachievable. Therefore it is more appropriate for the determination to set the 0.30% mass max limit via 10% distillation residue. Test methods ASTM 4530 and EN ISO 10370 are identical, despite the way they are set out in the determination, and ASTM D4530 is currently used to determine Carbon residue.

Item 3 – Subsection 4 (2), table, item 9
This item inserts a Derived cetane number property. Currently test method ASTM D6890 is listed as an option for determining cetane number which is technically incorrect as it calculates a *derived* cetane number.

Item 4 –Section 5
This item amends, omits and inserts testing methods requirements in the determination. This item removes reference to "as in force on 18 December 2004" and inserts provision that compliance with the standard will be determined by application of testing methods as existing on commencement of the determination.

For Methanol the "pr" prefix denotes a provisional test method, pr EN 14110. This method has now been finalised and is referred to as EN 14110. This item reflects this update.

Reference to Carbon residue 100 per cent distillation residue, EN ISO 10370 is removed as this parameter has been removed (see Item 2).

The testing method for Cetane number is ASTM D613 and all other testing methods listed (EN ISO 5165, IP 498/03 and ASTM D6890) will be removed. In line with Item 3, a Derived cetane number limit of 51(min) will also be specified with testing method ASTM D6890. This testing method is currently listed as an option for determining Cetane number which is technically incorrect as it calculates a Derived cetane number.

The testing method used to determine Contamination is EN 12662 and reference to ASTM D5452 will be removed.

The testing method used to determine Density is ASTM D1298 and reference to EN ISO 3675 will be removed.

For Ester content the "pr" prefix denotes a provisional test method, prEN 14103. This method has now been finalised and is referred to as EN 14103. This item reflects this update.

The testing method used to determine Group II Metals – (Ca, Mg) prEN 14538 now incorporates analysis of Na and K. prEN 14538 has also been finalised and no longer has a 'pr' prefix. EN 14538 will be adopted as the referee test method for the analysis of Na and K. Metals – Group I (Na, K) testing methods prEN 14108 and prEN 14109 be removed and replaced with EN 14538.

The testing method used to determine Oxidation stability is prEN 14112. prEN 14112 has now been finalised and is referred to as EN 14103. This item reflects this update. Reference to ASTM D2274 (as relevant to biodiesel) will be removed.

The Biodiesel determination sets a Phosphorus parameter of 10 ppm max testing method ASTM D4951. ASTM D4951 is not a suitable method for the evaluation of Phosphorus in biodiesel below 500 ppm/0.05 per cent. EN 14107 can detect Phosphorus in biodiesel at lower levels (below 20ppm) and is specified in the European Biodiesel standard EN 14214. ASTM D4951 will be omitted and EN 14107 will be inserted.

This item removes reference to IP test methods as these amendments removes IP test methods from the table in Section 5.

This item inserts subsection (3) into section 5. This item relates to a modified procedure for determining ester content. Biodiesel produced from certain feedstock, such a tallow or waste cooking oils, may not meet the ester content

limit (96.5 per cent) via EN 14103. A modified procedure has been developed and referenced in international standards. International standards bodies are currently assessing further modifications to EN 14103 and potential new test methods to address this issue. This item adopts current international practice for measurement of ester content.