

EXPLANATORY STATEMENT

Fuel Quality Standards Act 2000

Fuel Standard (Autogas) Amendment Determination 2013

(Issued by the authority of the Parliamentary Secretary for Sustainability and Urban Water)

The *Fuel Quality Standards Act 2000* (Cth) (the Act) and the *Fuel Quality Standards Regulations 2001* (Cth) (the Regulations) provide a framework for making and enforcing national fuel quality standards and fuel quality information standards. Subsection 21(1) of the Act provides that the Minister may, by legislative instrument, determine a fuel standard in respect of a specified kind of fuel. Subsection 21(5) further states that in making a determination under the Act, the Minister must have regard to the objects of the Act. The objects of the Act are set out in section 3 of the Act.

The Fuel Standard (Autogas) Amendment Determination 2013 (the Amendment Determination) makes amendments to the Fuel Standard (Autogas) Determination 2003 (the Autogas Standard).

Background

The Autogas Standard commenced on 1 March 2004. It regulates the quality of liquefied petroleum gas (LPG) supplied in Australia for automotive use by specifying the physical and chemical parameters which must be met before LPG fuel can be supplied or represented as fuel suitable for use in motor vehicles in Australia. The Autogas Standard also sets out testing methods used by the Department of Sustainability, Environment, Water, Population and Communities (the department) to determine compliance with the Autogas Standard.

Fuel quality standards operate in partnership with vehicle emission standards to reduce emissions that adversely impact on air quality, as requiring fuels to meet quality specifications facilitates compatibility with vehicle engine and emission control technologies. In Australia, vehicle emission standards are set out in the Australian Design Rules (ADRs) which are national vehicle standards made under the *Motor Vehicle Standards Act 1989* (Cth). The *Motor Vehicle Standards Act 1989* (Cth) is administered by the Department of Infrastructure and Transport.

The Australian Government's policy is to harmonise the vehicle emission standards with international regulations where possible, and consideration is given to the adoption of the international regulations of the United Nations Economic Commission for Europe (UNECE).

European vehicle emission standards are made as European Union (EU) Directives – the original directive for light duty vehicle emission standards is *Directive 70/220/EEC – Measures to be taken against air pollution by emissions from motor vehicles*, adopted in 1970. Progressively more stringent standards have since been made by a series of directives amending the original directive. These more stringent standards are commonly referred to as 'Euro 1', 'Euro 2', 'Euro 3', 'Euro 4' and so on.

In order to ensure optimal environmental and vehicle operability outcomes, the Australian Government has adopted a policy of harmonising Australian fuel quality standards with European Committee for Standardisation (CEN) fuel specifications, also known as European Standards, as they complement the UNECE vehicle emissions standards. However, the Australian Government recognises that the CEN fuel specifications have been developed to

address issues faced in the EU, and that not all aspects of the CEN fuel specifications will be applicable in the Australian context. As such, consideration is given to the benefits of harmonisation with the CEN fuel specifications, but it is recognised that alignment with all aspects of the specifications may not always be necessary or desirable.

The development of the Autogas Standard in 2003 considered the specifications in the CEN fuel specification for LPG (EN 589) at the time it was made. EN 589 had been developed to work in partnership with UNECE vehicle emission standards Euro 2 and Euro 3. Alignment with Euro 2 was given consideration in the development of ADR 79/00, as was harmonisation with Euro 3 in ADR 79/01. ADRs 79/00 and 79/01 came into effect in 2003 and 2005, respectively.

Euro 4 sets out an even more stringent vehicle emission standard for LPG. Australian vehicle emission standards were aligned with Euro 4, as appropriate to the Australian context, when ADR 79/02 came into effect in 2008.¹

The more rigorous vehicle emission standard set out in Euro 4 was complemented by a series of amendments to the corresponding CEN fuel specification, the most recent having been made in 2008 (EN 589:2008). These amendments meant that specifications under EN 589:2008 relating to residue on evaporation and sulfur levels were tighter than those in the Autogas Standard.

Review of the Autogas Standard and Consultation

In 2010, the department undertook a review of the Autogas Standard. Harmonisation with the tighter European Standard EN 589:2008 was considered as part of the review.

The department released a discussion paper, '*Review of LPG (Autogas) Fuel Quality Standard*', in January 2010 for a two month public comment period. Eleven written submissions were received from groups representing vehicle manufacturers, fuel retailers and suppliers, government agencies, environment organisations and the community. No significant issues were raised during this period and there was general support for the proposed amendments.

However, continued consultation to November 2012 was undertaken with members of the Fuel Standards Consultative Committee² and stakeholders they represent to resolve issues identified with the proposed amendments to the Motor Octane Number (MON), olefins, residue on evaporation and sulfur parameters. During this continued consultation, it was resolved that amendments (reductions) be made to the maximum limits for residue on evaporation and sulfur parameters for operability and environmental reasons, but that the MON and olefins parameters would remain unchanged.

Additional changes to amend testing methods for the odour and sulfur parameters to harmonise with EN 589:2008 were supported by stakeholders. The current testing method for

¹ Noting that ADR 79/01 adopted the Euro 3 requirements for light petrol and gaseous fuelled vehicles, and the Euro 4 requirements for light diesel vehicles.

² Required under section 24(A)(1)(b) of the Act. Section 24(A)(4) also requires the Minister to have regard to any recommendations of the Fuel Standards Consultative Committee arising out of the consultation. The Committee comprises members representing Australian Government and State and Territory governments, fuel producers, consumers and a non-government body with an interest in the protection of the environment. Other members may be appointed by the Minister. For example, vehicle manufacturers are currently represented.

water in the Autogas Standard refers to that specified in EN 589, the current version of which is EN 589:2008. The 2008 revision of EN 589 altered the testing method for water. Stakeholders raised safety concerns associated with conducting the revised method under EN 589:2008 and instead supported the adoption of the water testing method used in the 2004 version of EN 589.

Purpose and effect of the Amendment Determination

The Amendment Determination implements the outcomes of the review of the Autogas Standard. The amendments provide for LPG fuel that supports ADR 79/02 by reducing the limits for the residue on evaporation and sulfur parameters, to take effect from 1 December 2013.

The amendments reflect the Australian Government's policy of harmonising Australian fuel standards with equivalent CEN fuel specifications, as appropriate to the Australian context.³

The amendments also update the testing methods for the water, odour and sulfur parameters to harmonise the Autogas Standard with the European Standards or for safety reasons. A further amendment aligns a unit of measure for the dienes and volatile residues parameters with the unit used in the testing method prescribed for these parameters. These amendments will take effect on the day after the Amendment Determination is registered.

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

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

Documents incorporated by reference

Two documents are incorporated by reference in the Amendment Determination, as set out below:

- the European Standard for LPG (Automotive fuels – LPG – Requirements and test methods), 2004 version (EN 589:2004) published by the European Committee for Standardisation (CEN) at www.cen.eu/
- the European Standard for LPG (Automotive fuels – LPG – Requirements and test methods), 2008 version (EN 589:2008) published by the European Committee for Standardisation (CEN) at www.cen.eu/

³ In setting fuel standards, the Australian Government follows a set of general guiding principles that include compatibility with relevant international or internationally accepted standards. These guiding principles are set out in the document '*Setting National Fuel Quality Standards: Paper 3 Proposed model for standards implementation*' (May 2000).

Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

Fuel Standard (Autogas) Amendment Determination 2013

Overview of the Legislative Instrument

The Fuel Standard (Autogas) Amendment Determination 2013 amends the Fuel Standard (Autogas) Determination 2003 (the Autogas Standard) to reduce the maximum limits of sulfur and residue on evaporation in liquefied petroleum gas (LPG) fuel to assist with operability and emissions performance in LPG vehicles. It also updates testing methods used by the Department of Sustainability, Environment, Water, Population and Communities, or any other agency which administers the *Fuel Quality Standards Act 2000* (Cth) (the Act) from time to time, to determine compliance with the Autogas Standard. The amendments are consistent with the objects of the Act and are in line with best practice international fuel quality standards. The amendments are supported by stakeholders including vehicle manufacturers, fuel suppliers, consumers and groups representing the interests of the environment.

Human rights implications

This legislative instrument has been assessed against the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*. This legislative instrument does not engage any of the applicable rights or freedoms.

Conclusion

This legislative instrument is compatible with human rights as it does not raise any human rights issues.

The Hon Amanda Rishworth MP, Parliamentary Secretary for Sustainability and Urban Water

Fuel Standard (Autogas) Amendment Determination 2013

Section 1 – Name of Determination

This section provides that the name of the Determination is the Fuel Standard (Autogas) Amendment Determination 2013 (the Amendment Determination).

Section 2 – Commencement

This section provides that the Amendment Determination commences on the day after it is registered, except for the items under Schedule 2 which commence on 1 December 2013.

Section 3 – Authority

This section provides that the Amendment Determination is made under the *Fuel Quality Standards Act 2000* (Cth).

Section 4 – Schedule(s)

This section provides that each item that is specified in a Schedule to the Amendment Determination is amended or repealed as set out in the Schedule concerned, and any other item in a Schedule to the Amendment Determination has effect according to its terms.

Schedule 1 – Amendments commencing on day after registration

Item 1 Subsection 4(1) (cell at table item 1, column headed “Amount”)

This item amends the reporting unit for the amount of dienes from ‘mol %’ to ‘% (molar)’ to align with the reporting unit stated in the prescribed testing method for dienes (ISO 7941).

Item 2 Subsection 4(1) (cell at table item 4, column headed “Amount”)

This item amends the reporting unit for the amount of volatile residues (C5s and higher) from ‘mol %’ to ‘% (molar)’ to align with the reporting unit stated in the prescribed testing method for volatile residues (C5s and higher) (ISO 7941).

Item 3 Subsection 5(1) (cell at table item 4, column headed “Testing method”)

This item replaces the testing method for the water parameter from that specified in EN 589 (revised in EN 589:2008) to that specified in the 2004 version of EN 589 (EN 589:2004) to address stakeholders’ safety concerns in conducting the revised testing method specified in EN 589:2008.

Item 4 Subsection 5(1) (cell at table item 6, column headed “Testing method”)

This item replaces the testing method for the odour parameter, from that in the original European Standard for LPG, EN 589 Annex A, to that in Annex A of EN 589:2008 (the 2008 version of EN 589) to harmonise the Autogas Standard with the current European Standard for LPG, EN 589:2008.

Item 5 – Subsection 5(1) (cell at table item 8, column headed “Testing method”)

This item replaces the testing method for the sulfur (after stenching) parameter, from testing method ASTM D2784 to testing method ASTM D6667, to harmonise the Autogas Standard with EN 589:2008.

Schedule 2 – Amendments commencing on 1 December 2013

The items in Schedule 2 have a delayed commencement date of 1 December 2013. This delayed commencement will allow LPG suppliers sufficient time to complete preparations to enable the reduced limits for the residue on evaporation parameter and the sulfur (after stenching) parameter to be reliably met.

Item 1 Subsection 4(1) (cell at table item 2, column headed “Amount”)

This item reduces the limit for the residue on evaporation parameter from 100 mg/kg to 60 mg/kg, to harmonise the Autogas Standard with the current European Standard for LPG, EN 589:2008, and to address operability issues.

Excessive residue in LPG can cause operability problems in LPG vehicles by blocking the fuel system. Some of this residue is contributed by LPG hoses and hose assemblies. However, with the recent amendment to the Australian Standard for these hoses (AS 1869) and the availability of ‘low extractable’ hoses, the residue limit can be reduced from 100 mg/kg to 60 mg/kg.

Item 2 Subsection 4(1) (cell at table item 3, column headed “Amount”)

This item reduces the limit for the sulfur (after stenching) parameter from 100 mg/kg to 50 mg/kg, to harmonise the Autogas Standard with the current European Standard for LPG, EN 589:2008, and to support vehicle compliance with emission standards.

Limiting sulfur levels in LPG is important for the efficient functioning of vehicle technologies (e.g. catalysts) necessary for compliance with more stringent emission standards. Suppliers have advised that they can move from 100 mg/kg to 50 mg/kg sulfur at minimal cost.