

EXPLANATORY STATEMENT

Fuel Quality Standards Act 2000

Fuel Quality Standards (Petrol) Determination 2019

(Issued by the authority of the Minister for the Environment)

Purpose and operation

The *Fuel Quality Standards Act 2000* (Cth) (the Act) provides the legislative framework for regulating the quality of fuel supplied in Australia. The objectives of the Act are to reduce the level of pollutants and emissions arising from the use of fuel that may cause environmental and health problems; facilitate the adoption of better engine and emission control technology; allow the more effective operation of engines and ensure that, where appropriate, information about fuel is provided when the fuel is supplied.

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

The nine legislative instruments made under the Act are sunseting on 1 October 2019, including the Fuel Standard (Petrol) Determination 2001. Each sunseting instrument has been reviewed to determine whether it is fit for purpose. The Fuel Quality Standards (Petrol) Determination 2019 (the Determination) sets out the parameters and testing methods for petrol used in Australia.

The purpose of the Determination is to revoke and replace the sunseting Fuel Standard (Petrol) Determination 2001, and to provide certainty for the quality of petrol supplied in Australia.

The most significant changes that have been made in this updated standard are in the aromatics and sulfur parameters. From 1 January 2022, the pool average for aromatics is reduced from 42 per cent to 35 per cent and from 1 July 2027 all grades of petrol can contain no more than 10 mg/kg sulfur, reduced from 150 mg/kg in regular unleaded petrol and 50 mg/kg in premium unleaded petrol. A new limit for ethyl tertiary butyl ether has been introduced at 1 per cent to anticipate any future introduction of this compound into the Australian Government's regulatory framework for chemicals. The limit for benzene has been reduced from 1 per cent to 1.0 per cent.

In the updated standard for ethanol in petrol, the limit for acidity has been reduced from 0.007 per cent to 0.006 per cent, the limit for inorganic chloride has been reduced from 32 mg/L to 10 mg/L, the limit for sulfate has been reduced from 4 mg/kg to 4.0 mg/kg and the limit for sulfur has been reduced from 30 mg/kg to 10 mg/kg.

In the new standard, changes to testing methods have been made as appropriate, and some parameter names and units have been updated to improve consistency.

Background

In October 2015, the Australian Government established the Ministerial Forum on Vehicle Emissions to coordinate a whole-of-government approach to reducing motor vehicle emissions. Part of this work is a measure to improve fuel quality standards which will assist in achieving better environmental, human health and engine operability outcomes.

Consultation

This Determination has been developed following extensive public consultation in relation to a range of policy options to improve Australia's fuel quality. Two rounds of public consultation were conducted, as well as targeted consultation with key industry stakeholders to finalise options for the legislative instruments that prescribe fuel standards. The stakeholders included fuel producers, fuel importers, vehicle manufacturers and automobile associations. Targeted consultation with key testing laboratories occurred to ensure the proposed changes reflected the most up-to-date testing methods for the relevant parameter.

Under the Act, before making a fuel standard, the Minister must also consult the Fuel Standards Consultative Committee. The committee provided advice on the exposure draft of the Determination.

Regulation impact analysis

The Office of Best Practice Regulation (OBPR) was consulted in relation to the remaking of all nine sunseting legislative instruments under the Act. The *Better fuel for cleaner air regulation impact statement* was prepared to assess the impacts on industry, the community and the environment of various policy options to improve fuel standards. The OBPR advised that the *Better fuel for cleaner air regulation impact statement* is compliant with the Government's requirements and is consistent with best practice (OBPR ID 20699).

The *Better fuel for cleaner air regulation impact statement* is available at [Attachment A](#).

Incorporation

The Determination lists testing methods to be used by the Department of the Environment and Energy (the Department) to determine compliance with the parameters, for example ASTM D5453 is used to test the sulfur content of petrol. ASTM testing methods, developed by ASTM International, describe procedures that analytical laboratories must follow. The listed testing methods are incorporated as they are in force at the time the Determination commences on 1 October 2019. The testing methods are available for purchase through ASTM International (www.astm.org). A fee is charged to purchase each testing method in its entirety. The incorporation of the testing methods into the Determination does not place undue burden on fuel producers.

This instrument is a legislative instrument for the purposes of the *Legislative Instruments Act 2003*.

Details of the Fuel Quality Standards (Petrol) Determination 2019

Section 1 – Name of instrument

This section specifies that the name of the Determination is the Fuel Quality Standards (Petrol) Determination 2019 (the Determination).

Section 2 – Commencement

This section provides that the instrument commences on 1 October 2019.

Section 3 – Authority

This section sets out the provision of the *Fuel Quality Standards Act 2000* under which the Determination is made.

Section 4 – Definitions

This section provides for definitions of terms used in the Determination.

Section 5 – Fuel standard for petrol

The table in this section details the chemical and physical parameters and their specifications that must be met before petrol can be supplied for use in Australia. Any ethanol component of petrol must comply with the fuel standard for ethanol in Section 6.

The following petrol components or additives are limited to reduce emissions and therefore improve air quality and human health: aromatics, benzene, sulfur, lead, oxygen and olefins. In addition, tertiary butyl alcohol, ethyl tertiary butyl ether, methyl tertiary butyl ether and diisopropyl ether are limited to protect groundwater in the event of spills or storage tank leakages. Some of the above parameters also affect engine and vehicle operability. In addition, copper corrosion, final boiling point, existent gum, oxidation stability, motor octane number, phosphorous and research octane number are specified to ensure that engines can operate optimally, which will increase fuel efficiency and lower emissions from tailpipes.

Compliance with the specification for a parameter is determined by the testing method specified in the table. Compliance with the specification for a parameter is determined by using the testing method for that parameter mentioned in that item of the table.

Section 6 – Fuel standard for ethanol

The table in this section specifies the fuel standard for ethanol in petrol. The chemical and physical parameters in the table must comply with their specification before petrol containing ethanol can be supplied for use in Australia.

Sulfur is limited to reduce emissions and therefore improve air quality and human health. It also affects vehicle operability. The following parameters are limited to improve the operation of engines, indirectly improving air quality: acidity—as acetic acid, appearance, copper, inorganic chloride, methanol, pHe, solvent washed gum, sulfate and water. Denaturant is added to fuel ethanol to make it unfit for human consumption.

Compliance with the specification for a parameter is determined by the testing method specified in the table. Compliance with the specification for a parameter is determined by using the testing method for that parameter mentioned in that item of the table.

STATEMENT OF COMPATIBILITY WITH HUMAN RIGHTS

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

Fuel Quality Standards (Petrol) Determination 2019

This Determination is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Overview of the legislative instrument

The purpose of the Fuel Quality Standards (Petrol) Determination 2019 is to revoke and replace the sunsetting the Fuel Standard (Petrol) Determination 2001. The technical detail of the 2001 Determination has been updated in the 2019 Determination. The Fuel Quality Standards (Petrol) Determination 2019 sets out the parameters and testing methods for petrol and ethanol in petrol used in Australia.

Human rights implications

This Determination does not engage any of the applicable rights or freedoms.

Conclusion

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

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