



Emission standards for non-road spark ignition engines and equipment

Non-road spark ignition engines and equipment (NRSIEE) can contribute significantly to air pollution in Australia, particularly in urban areas. The Australian Government is working towards introducing emission standards to reduce air pollution from NRSIEE which include mowers, chainsaws, generators and outboards.

Reducing NRSIEE emissions – a national approach

NRSIEE refers to a wide range of petrol and gas¹-powered equipment such as marine engines and garden equipment. NRSIEE generally do not have the same advanced emission controls found in on-road engines, so they are high polluters relative to their engine size and usage. For example, a two-stroke leaf blower used for one hour can produce as much hydrocarbons as 150 cars over the same time. High-emitting NRSIEE are banned in overseas markets like the USA, Canada, Europe and China.

In December 2015, Australia's Environment Ministers established a National Clean Air Agreement to ensure a clean air future for Australia.

A key initial action under the Agreement is to introduce new Commonwealth legislation to set emission standards for NRSIEE. This would bring Australia into line with best practice international standards, to ensure we have the same high quality, low-emitting NRSIEE products as those accepted overseas.

1 Includes LPG, CNG and LNG.

Image credit: Leanne Chow

What are the standards?

The proposed standards would be based on the US Environmental Protection Agency (US EPA) and equivalent international standards. A mapping exercise will determine how closely to align the Australian approach with those overseas. The US EPA has both exhaust and evaporative emission standards. US EPA evaporative emission standards cover fuel systems such as tanks, fuel and vent lines, caps and carbon canisters.

Which products would the standards apply to?

The proposed standards would only apply to exhaust and evaporative emissions from newly imported or manufactured NRSIEE. The standards will not apply to NRSIEE that Australians already own. When the standards come into force, NRSIEE suppliers and dealers would not be permitted to provide non-compliant NRSIEE to the Australian market. The categories to be covered are:

- Spark ignition engines rated 19 kilowatts (25 hp) and below used in household and commercial operations such as: lawn mowers, ride-on mowers, mulchers, brush/line cutters, generators, pumps, chain saws, and other small handheld and pushed/pulled engines.

- Spark ignition engines used in marine vessels, including: outboard engines, personal watercraft, inboard/sterndrive engines.

What would the standards require?

The proposed requirements will vary depending on the type of NRSIEE. In general, the new legislation will allow for:

- **prohibiting** the import, manufacture and supply of new NRSIEE that do not meet the standards
- **certifying** new domestic and imported NRSIEE products, noting that many NRSIEE products already certified by the US EPA and other jurisdictions with equivalent standards would be recognised in Australia
- **cost recovery** options to support government administration of the standards
- **flexibility** to allow for a timely and orderly transition to the new standards. Options being examined include exemptions (limited and specified), phase-in timeframes and averaging and banking (to allow for engine families that, on average, meet the standards).

When would the standards come into force?

The Australian Government aims to have new legislation introduced as soon as possible, subject to the subject to Parliament's schedule. Once the legislation commences, subordinate legislation detailing the standards and their requirements would be made. Exhaust emission standards are anticipated to take effect in 2017, with evaporative emission standards being considered for introduction in 2019.

Phase-in time frames are being considered to allow for orders in transit and time for industry to transition to compliant engines with minimal disruption and cost. Following phase-in, the import, manufacture and supply of non-compliant NRSIEE would be prohibited.

How do I ensure my products meet the new standards?

The proposed standards would only apply to newly imported and manufactured NRSIEE products, not to those that people already own.

The proposed standards are performance rather than technology-based. In general, four-stroke and direct-injection two-stroke engines will meet the standards, as will a range of low-emitting two-stroke handheld equipment (e.g. some chainsaws and brush cutters). Conventional two-stroke outboards and non-handheld equipment such as mowers would not meet the new standards.

Importers, manufacturers and suppliers of NRSIEE should start planning to move their product lines to meet US EPA or equivalent standards now, to ensure they have compliant products when the standards commence.

Further Information

The Department of the Environment's website has further information about the standards:

www.environment.gov.au/protection/air-quality/non-road-spark-ignition-engines-and-equipment

You may also direct enquiries to:

airquality@environment.gov.au

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