

NZ Guidance Document

Voluntary Pre-Registration of household refrigerated appliances

This is a guidance document only and if you have any questions, please contact EECA:
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Purpose

The Energy Efficiency (Energy Using Products) Regulations permit EECA to set mandatory minimum efficiency requirements (MEPS) to drive greater energy efficiency, and mandate Energy rating labelling (MEPL) to provide model comparability to consumers at point of sale.

EECA are in the process of introducing regulation to update MEPS/MEPL and product performance testing requirements for Household Refrigerating Appliances. This update will replace regulation last updated in 2011.

NZ requirements will mirror changes in Australia to maintain alignment under both the E3 programme and TTMRA.

Background

In Australia and New Zealand, energy efficiency regulations in the form of the MEPS and MEPL have been introduced to address market failures associated with household refrigerators and freezers. However, there have only been relatively modest improvements in the energy efficiency of refrigerators and freezers supplied in Australia and New Zealand beyond the regulatory levels set in 2005, compared to what is technically achievable.

Although the current regulations have largely achieved their objective of promoting the development and use of more energy efficient refrigerators and freezers than would have been the case under business as usual, regulatory failures exists because:

- Current MEPS levels are set too low for Australia's and New Zealand's markets. In an environment where we now have access to a wider variety of cheaper and more efficient appliances, increased electricity costs mean that it is cost effective to mandate tighter MEPS levels. This will reduce consumers' net costs of refrigeration ownership and also reduce GHG emissions.
- Requiring suppliers to test their appliances to the Australian and New Zealand regionally-specific test standard for refrigerators and freezers makes appliance testing more complex than necessary, resulting in higher compliance costs.

Consequently, there is scope to align Australia's and New Zealand's MEPS levels with those adopted by the United States (US) in 2014 (referred to as MEPS3). Further, by referencing the International Electrotechnical Committee (IEC) test standard (IEC 62552:2015 parts 1-3), rather than the regionally-specific Australian and New Zealand test standard, will simplify product testing and lead to an efficiency improvement.

Consultation

The Australian Government has worked with industry on the new requirements for household refrigerators and freezers since 2011. A series of stakeholder forums were held and discussion papers released for consultation through to 2016. A consultation

regulation impact statement was released in April 2017 and public consultation meetings were held in May and June 2017.

Issues raised through this process were discussed further with key stakeholders. Suppliers unanimously supported the adoption of the new international test standards.

Industry representatives also lead the development of the new Australian/New Zealand Standard referenced in the new regulations which strengthens MEPS by aligning with those implemented by the United States of America in September 2014.

Details of the updated Regulation

Introduction

It is anticipated that the amended regulations will be approved and come into force in mid-2021. An exact date cannot be provided at this time as the process of amending the regulations is dependent on a number of regulatory and administrative requirements, but in the interim, regulated parties can choose to either meet the current requirements or the new requirements. A minimum of 6 months' notice will be provided before the amended regulations come into force. Voluntary pre-registration to the new requirements is permitted from 1 September 2019.

Standards

The updated regulation references standards by the International Electrotechnical Commission (IEC) which is consistent with NZ Government policy of harmonisation with international standards where appropriate.

The test standards referenced in the updated regulation are:

AS/NZS 4474:2018 means *Australian/New Zealand Standard 4474:2018 Household refrigerating appliances – Energy labelling and minimum energy performance standards requirements.*

Note 1: AS/NZS 4474:2018 includes all amendments up to and including AS/NZS 4474:2018/Amdt 1:2019 made on 15 March 2019.

Note 2: AS/NZS 4474:2018 is available from Standards Australia Limited.

AS/NZS IEC 62552.1:2018 means *Australian/New Zealand Standard IEC 62552.1:2018 Household refrigerating appliances – Characteristics and test methods – Part 1: General requirements.*

Note 1: AS/NZS IEC 62552.1:2018 is an identical adoption of IEC 62552-1:2015.

AS/NZS IEC 62552.2:2018 means *Australian/New Zealand Standard IEC 62552.2:2018 Household refrigerating appliances – Characteristics and test methods – Part 2: Performance requirements.*

Note 1: AS/NZS IEC 62552.2:2018 is an identical adoption IEC 62552-2:2015.

AS/NZS IEC 62552.3:2018 means *Australian/New Zealand Standard IEC 62552.3:2018 Household refrigerating appliances – Characteristics and test methods – Part 3: Energy consumption and volume.*

AS/NZS IEC 62552.3:2018 is an identical adoption of IEC 62552-3:2015.

IEC 62552-1:2015 means *IEC Standard 62552-1:2015 Ed. 1 Household refrigerating appliances – Characteristics and test methods – Part 1: General requirements.*

IEC 62552-2:2015 means *IEC Standard 62552-2:2015 Ed. 1 Household refrigerating appliances – Characteristics and test methods – Part 2: Performance requirements.*

IEC 62552-3:2015 means *IEC Standard 62552-3:2015 Ed. 1 Household refrigerating appliances – Characteristics and test methods – Part 3: Energy consumption and volume*

Scope

The scope of the regulations has been changed to clarify that it covers an insulated refrigerator/freezer cabinet that:

- (a) has one or more compartments that are controlled at specific temperatures; and
- (b) is intended for the storage and preservation of foodstuff that require refrigeration at specified temperature conditions; and
- (c) is cooled by natural convection or a forced convection system whereby the cooling is produced using vapour compression cycle technology; and
- (d) can be connected to mains power; and
- (e) is ordinarily supplied for household use.

Classes of products not covered by regulation

- (a) Products which have a total volume of less than 80 litres and that are designed exclusively for use in caravans and other vehicles including:
 - (i) mobile homes;
 - (ii) campervans;
 - (iii) rail cars; and
 - (iv) boats;
- (b) portable products that:
 - (i) have a chest configuration; or
 - (ii) have a upright configuration and have a total volume of less than 80 litres;

Note: portable products means products that are:

- specifically designed to be moved from place to place as part of their normal use as stated in the product literature that accompanies the product, including the operating manual and the user instructions, and
- designed to operate on an electrical supply of 12 or 24 volts direct current.

- (c) products that have a total volume of less than 30 litres where the refrigeration function is secondary, such as boiled and cooled water dispensers;
- (d) products that have no options for connection to a 230 volt or 400 volt mains electricity supply at 50 hertz;
- (e) products that cool using technologies other than the vapour compression cycle;
- (f) wine storage appliances; or

Note: This new regulations covers household refrigerating appliances that have one or more wine storage compartments in addition to other compartment types.

Note: wine storage appliances means appliances which are specifically designed exclusively for the storage or maturation, or for both storage and maturation, of wine, with:

- the capability to maintain continuously a nominated temperature in the range from 5 degrees Celsius to 20 degrees Celsius; and
- shelving specifically designed to store wine bottles.

(g) stand alone ice-makers.

Registration

To minimise disruption to the NZ market and contain compliance costs, EECA are using a version of the Australian registration system to pre-register household refrigerators models to the updated regulation requirements. All accepted pre-registrations models will retain validity when the regulations come into force.

Performance requirements

All performance requirements are outlined in AS/NZS 4474:2018, specifically:

- (a) clause 4.2 of AS/NZS 4474:2018 (MEPS Levels); and
- (b) clause 4.4 of AS/NZS 4474:2018 (Pull Down); and
- (c) clause 4.5 of AS/NZS 4474:2018 (Storage Test); and
- (d) clause 4.6 of AS/NZS 4474:2018 (Temperature Excursions During Defrost and Recovery); and
- (e) clause 4.8 of AS/NZS 4474:2018 (Declared Automatic Controls); and
- (f) clause 4.9 of AS/NZS 4474:2018 (Circumvention devices);

Testing

Testing requirements:

- (a) “test standard Part 1” is taken to mean either AS/NZS IEC 62552.1:2018 or IEC 62552-1:2015;
- (b) “test standard Part 2” is taken to mean either AS/NZS IEC 62552.2:2018 or IEC 62552-2:2015;
- (c) “test standard Part 3” is taken to mean either AS/NZS IEC 62552.3:2018 or IEC 62552-3:2015.

Energy Rating Label

Products must meet the ERL requirements specified in AS/NZS 4474:2018, specifically:

- (a) section 2 of AS/NZS 4474:2018 (Determination of Energy Consumption); and
- (b) section 3 of AS/NZS 4474:2018 (Calculations for Energy Rating Label); and
- (c) section 6 of AS/NZS 4474:2018 (Content, Format and Affixing Energy Rating Labels).