



18 October, 2007

Stephan Kolb
DG TREN
European Commission, Brussels

Re: Working Document on Ecodesign Requirements - Standby

Dear Stephan

I would like to submit some comments on your working document which I received a short time ago. I am submitting these comments on a personal basis. Although my company are consultants to the Australian Government on technical issues such as standby, and I am the convenor of IEC TC59 MT9 on standby, the comments do not necessarily reflect the views of the Australian Government, MT9 or the IEC.

I am happy for these comments to be made public if you wish.

Please contact me if you have any questions.

Kind regards

A handwritten signature in black ink, appearing to read 'Lloyd Harrington'. The signature is fluid and stylized, with a long horizontal stroke extending to the right.

Lloyd Harrington
Director

Working Document on Ecodesign Requirements – Standby Comments from Lloyd Harrington, Energy Efficient Strategies, Australia

General comment

Firstly, I welcome in principle the concept of setting limits on various standby modes. The limits proposed seem reasonable, although I do not wish to comment on that specifically. Some account seems to have been taken of the power requirements for different types of functions, which is promising.

Sensing Functions

The draft document does not seem to include any sensing functions, which I believe are a quite legitimate function within the scope of standby. Sensing functions (eg occupancy sensors, sensors for water flow and temperatures) are likely to be included in the definition of standby mode in the forthcoming draft amendment to IEC62301.

As the draft does not mention sensor-based protective functions, does this mean that there are no limits for this function? Or does that mean that no allowance is provided for these functions? Either way, this is an area worthy of closer consideration.

Pre-heaters

While pre-heaters of course should be exempt, we don't want manufacturers to include constant pre-heaters to avoid the requirements. There needs to be some stated limitation to this exemption (pre-heaters are associated with moving into active mode in any case, so I am not sure why they are included as an exemption to standby). Does this mean that crankcase heaters for air conditioners are exempted? This is an area which is a serious problem. Most ducted units are using 60W to 90W constantly when off, with no adjustment for temperature. These values are difficult to measure in the field as most units are hard wired. It is mandatory to report this data for registration in Australia and we have identified this as a major energy problem, which I am sure is international in nature.

Network standby mode

Network standby mode needs to be outside of the scope of the requirements at this stage until more rigorous requirements can be defined. However, products which have a network capability but where the network is not active should be required to meet the limits specified for the relevant mode - this needs to be clarified.

Other modes

The document needs to exclude remote main power switches from the scope of standby mode - these require no power.

The document does not deal with odd modes like end of program mode for dishwashers, clothes washers and dryers, which don't really fall into any of the defined categories. Is it intended that these are covered?

Persistence of Modes

IEC62301 is quite clear that the modes of interest within the standard are, in principle, modes that could persist for an indefinite period. This needs to be included within the scope of the document as there are many short term or temporary low power modes which are negligible in terms of energy consumption and which it would be unreasonable to include (eg delay start).

Verification

The approach proposed for verification is completely wrong. The basis stated assumes that the average of the mode power cannot exceed the specified limit. This is basically impossible to verify and enforce, once production variability is considered. For highly variable products, a limit defined in this way may require testing of 10 or 20 or more products to ascertain whether such a requirement is valid (even then, the results may be inconclusive). A requirement specific in this way could encourage manufacturers to make their products more variable to ensure that such limits cannot be enforced.

The approach proposed is satisfactory for verification of a declared value (such as energy consumption), where a statistical test is conducted to assess whether a claim is within reasonable bounds. However, it is unworkable for setting limits on product energy consumption. Any limit needs to be specified as an absolute maximum power level for all products, including production variability. This will force any suppliers with variable products to ensure that their products are, on average, well below the maximum permitted limit. More information can be found in the paper title “Statistical Basis for the Determination of Checktesting Validity Criteria” which can be found on <http://www.energyrating.gov.au/admin-guidelines.html>

Comments on Modes and Power Levels

A power level of 0.5W for a remote control is a reasonable interim level, however, products are now available that are well under 0.1W with this function active. The requirement of 0.5W in off mode is perhaps weak for the second tier requirement.

The attempt at power management appears reasonable. But the requirement does not define a limit for the reduced power consumption in this mode – this should not exceed the power for standby mode at least.

There is some confusion as to whether standby modes of products that use other fuels are covered or not. The paragraph titled “Relation with product specific (“vertical”) IMS” states that standby of products that use other fuels will be covered in product specific IMS. The paragraph title “Standby” says that electricity used for products that use other fuels are covered. This requires clarification. There is no reason why electrical energy consumption of products that use other fuels should be exempt from the requirements. But the electricity consumption for many of these products is for sensing equipment rather than displays and remote switching.

Exemptions will need to be carefully defined. It would seem sensible to exclude refrigeration products that are designed to maintain internal temperatures at specified levels and some heating products (eg water heating).

IEC62301 amendment does not specifically contain sensor based safety functions. However, the IEC amendment will contain sensor functions in the scope of standby mode. There is some debate on whether protective functions should be included or not within the scope of standby mode.

END