

Public consultation - Update for units of measurement directive

Subject : Public consultation - Update for units of measurement directive

I will first answer to the requested questions with some comments:

1. Yes

2. Yes - The directive should focus on the exclusivity of SI and leave the details to other directives that deal with that specific subject.

3. Yes - With mention that only those units shall be allowed that have a specific need and are approved by recognised international organizations.

These units shall at no time duplicate or interfere with the units of the SI in which case only the SI units shall be allowed.

I will give here an example of a possible result of not including regulation on arbitrary units:

Printers for PC's have always used the term ppm which is supposed to mean pages per minute. This unit should never be allowed although it may be approved by an association of international manufacturers (I have no knowledge of such).

The problem with such a unit is who defines the unit "Page": is that an A4, A3, US Letter size? Instead a speed of printing defined in units of the SI like cm/s should be sufficient to help consumers compare printers.

Another arbitrary unit in use in the US can be seen in all public restrooms and it is actually governed by a US Law signed by President Clinton. It is the GPF (Gallons per Flush) with it's allegedly "metric" counterpart LPF (Liters per Flush). These so called units are used to describe in a strange way the flow rate of a toilet or urinal. They are clearly printed in visible places on all such devices. One would logically wonder if there is a scientific definition of the "Flush". At what altitude, pressure, Northern or Southern hemisphere etc... Needless to say that a standard unit of flow like L/s would once again suffice to compare products.

As a conclusion if the Directive 80/181/EEC does not clarify what kind of arbitrary units may be allowed such aberrations like the ones described above will continue to make their way in the EU market.

4. No- Ratios seem to be a specific case, I do not know how important it would be to include them as long as the non-SI units are removed. I do not know enough to give a qualified answer. If this applies to something like "Liters per Flush" then yes they need to be included.

5. Yes - Sadly, the aeronautics industry is not an easy thing to switch. A larger effort needs to be made here. I don't know about the rail transport and what non-SI units are used there and if they cannot be replaced by SI ones without much trouble.

6. ALL the listed indications need to be eliminated. kcal, scoop, pixel and so on. The problem is that with the so many postponements of this directive those units have continued to appear and multiply. One simple example here.

If we had stopped the pixel when it first appeared in computer screens now we would not have the pixel carried over to digital cameras and LCD TV screens.

Lack of action in this domain will result in further confusion of the

consumer. A period of dualism may be considered here to let consumers get used with the new units (ex: for screen resolution) but a clear deadline needs however to be established after which dualism should disappear.

The scoop needs to be replaced with a volumetric measure like 50 ml etc.

7. NO! - South Korea has already outlawed the non-SI units and I see no reason why the EU should not. The EU deadline has already been postponed twice, each time with 10 years. The effect was that the US has made no further effort to change it's laws. In fact metrication is in a regress in the US. Previous laws that conditioned federal funding for interstate highways to the usage of SI units in the and execution has been repealed by pres. Clinton. In the meantime US continues to ship goods labeled in Imperial units to the EU.

On a recent trip to Romania I noticed that air conditioners were sold in Carrefour labeled in BTU. (It should be in fact BTU/h but they lost the /h because they have no idea what it means anyway). Needless to say that BTU/h is a measure of Power and the Watt should be used instead. Using the BTU deprives the consumer of the possibility to quickly assess the efficiency of that unit. A simple ratio of the cooling power versus the power of the electric motor (which was listed in Watts) would give a good idea of the unit's efficiency.

I wonder if HVAC engineers in Romania use the BTU in sizing the AC units for buildings. It is definitely not taught in school/university.

Another example came from my cousin who installs computer networks in Romania. He once asked me what is a "foot". Because the technical data on some US-made cables was ONLY given in imperial units (ohms/ft).

8. Yes - As described above dualism only causes confusion and it is the absolute duty of the State, in this case the EU, to ensure that the sizes and measurements used within the Community are uniform and simple to understand.

Therefore even with the price of a temporary trade barrier the exclusivity of the SI units should be mandatory. Continuing to allow arbitrary and supplementary units should not be an option.

And to conclude:

I am an EU citizen with some good transatlantic experience in engineering. I am no specialist in international trading or politics.

It is however clear to me that the EU needs to take a firm stance against perpetuating the status-quo of the mixture of units in international trade.

You probably already know the situation with the computer media and Hard-drive manufacturers which use the Gigabyte in their own particular way just because it sounds bigger. This is the direct result of such "flexibility" in directives. If the State does not regulate units, then the Marketing department will invent one at the company's picnic party.

And another thought here: Allowing exclusively internationally accepted units/measurements in the EU would increase the importance of such international bodies like ISO and EEC and manufacturers will be more active in applying for approval with these institutions before they introduce a new measurement.

I hope this helps,

Adrian Jadic, MSME