



ORGALIME POSITION PAPER ON METRIC UNITS

ORGALIME answer
to the Commission inquiry on units of measurement (Directive 80/181/EEC)

20/02/2007

Introduction

Speaking for European engineering, Orgalime represents 3 industrial branches (metalworking, mechanical engineering and electrical engineering) that manufacture over 27% of total EU manufacturing output. It has [36 member](#) trade federations in 24 European countries. The industry accounted for some 1,598 billion euro turnover in 2005. The industry represents not only more than one quarter of the output but also one third of the exports of the EU's manufacturing industries. Our industry is therefore highly dependent on efficient trade flows both for our inputs which our companies source worldwide and for our exports.

Orgalime is generally satisfied with the current situation on dual labelling of SI (metric) and non-SI units that was established by Directive 80/181/EEC of 20 December 1979 on the approximation of the laws of the Member States relating to units of measurement and its updates. However, our industry is worried that the indication of mandatory SI units in the European Union may no longer be supplemented by indications of non-SI units of measurement after 31/12/2009, as this may add costs and administrative burden on our industry which is the N°1 exporter of goods to the US market that also use non SI units. Therefore, we welcome the Commission Staff Working paper on units of measurements dated 22/12/2006, which envisages the continuation of permission to use supplementary indications of non-metric units. This view has been already stated in our [position of 16 March 2006](#). We are pleased to provide our detailed answers to the public questionnaire.

1. Should the "katal" be introduced into Directive 80/181/EEC?

Katal is, as far as we are aware, not used within the European engineering industry. Instead, the unit "mol/s" is used, in particular with regard to process engineering. If the Commission considers introducing "katal" into Directive 80/181/EEC, it must be ensured that the unit "mol/s" will still be allowed.

2. Should the use of SI-indications in specific cases be covered in other directives rather than in Directive 80/181/EEC?

NO. We are not aware of specific uses of SI-indications by our industry outside Directive 80/181/EEC. Should this be the case, we would prefer that these specific cases be dealt with in Directive 80/181/EEC, in order to avoid any confusion.

3. Should arbitrary units be included in Directive 80/181/EEC if supplementary indications are no longer allowed?

We are not aware of any problems of use of arbitrary units and we do not foresee any in the future within our industry if the permission for supplementary indications is continued, as we ask under question 7. Should any amendment to the current situation be deemed necessary for other trades, we suggest including a reference in the directive to the

international standards ISO 31 and ISO 1000, in order to align EU countries with the international system of units of measurement and their multiples or submultiples (SI).

4. Should ratios be included in Directive 80/181/EEC if supplementary indications are no longer allowed?

For ratios using SI units, we see no problem for our industry. For ratios using one or more non-SI, we believe that, in the spirit of better regulation, and to avoid imposing unnecessary costs and burdens on European engineering companies, it should be left up to each market segment to judge the speed at which it adopts ratios using SI units, as recommended by the BIPM.

5. Should the exemption in Article 2b be maintained in Directive 80/181/EEC?

As a supplier of the air, sea and rail transport sectors, our industry has not been faced with any noticeable problem. Therefore, we support maintaining the status quo with the continued possibility to label products and make documentation with the supplementary indications requested by the international conventions or other agreements in the transport sectors.

6. Should indications specific to certain sectors be included in Directive 80/181/EEC?

If it is not possible to continue using supplementary indications, we would support indications specific to certain sectors being included in Directive 80/181/EEC. However, in the spirit of better regulation and to avoid imposing unnecessary costs and burdens on European engineering companies, we support maintaining the status quo, by continuing the possibility for each market sector to use supplementary indications specific to their sector as long as they judge it necessary (see our answer under question 7).

7. Should the use of supplementary indications in Article 3 in Directive 80/181/EEC be continued?

YES. The European engineering industry is the N°1 exporter of goods to foreign markets which may not have adopted the metric system yet, such as the USA. **Our industry is responsible for about 20% of all EU exports to the USA, which amounted to 62,615 million euro in 2005** (TDC Chapter XVI: Machinery and mechanical appliances; electrical equipment; parts for EU 25, [Source EC DG Trade based on Eurostat Comext](#)). If metric units only are to be used in the European Union as from 1 January 2010, major export markets for European industry, such as the USA, will still require different units for certain applications. For instance, catalogues for electrical equipment, machinery or parts, while generally using SI units, often mention a corresponding supplementary indication of non-SI units which is attached between brackets.

Consequently, the European industry will, at the very least, have to produce two versions of its packaging and technical documentation, e.g. operating and training manuals, instructions for service, maintenance or repair, brochures, leaflets, etc.: an SI version and a USA version. This will involve significant extra costs and render the life of our industry more difficult on world markets.

Moreover, in certain cases, the final destination of the product is unknown. In particular as regard the OEM market (Original Equipment Manufacturers), products are often components which are intended to be integrated in machines or equipment for worldwide use. Thus, we cannot anticipate which units shall be used, SI or non-SI.

Examples:

- an electronic relay with the mandatory marking of the tightening torque to be used for a safe cable connection. This relay manufactured in Europe (SI units) is exported to the USA (non-SI units) to be integrated in a Control Unit. Then, this Control Unit is re-exported to Europe (SI units) to be part of a European machine. In this case, successive different units should be used...
- in the process industry (in particular for the oil and petrochemistry industries), pressure units of the order signal are often expressed in psi (pound per square inches: 3 to 15 or 6-30). Consequently pressure gauges carry a graduation in psi in addition to the graduation in bar and MPa. to preserve that the graduation in bar or Pa can thus present a risk of a wrong interpretation by market operators.
- For valves, the designation of standardised dimension is the DN or the NPS. A number representative of the diameter in mm corresponds to the DN, but it is not a measuring unit. The NPS is followed by a number which represents the dimension in inches. However, it is not a measuring unit but a designation. The interpretation of the directive may prove difficult, and induce authorities into differences of interpretation and, as a consequence for certain industries, to the application of erroneous levels of taxation (excise duties), if they do not have a sufficient knowledge of applicable standards.

Therefore, in the spirit of better regulation and to avoid imposing unnecessary costs and burdens on European engineering companies, we believe that it should be left up to each market sector to judge the speed at which it adopts the SI units system. Thus the possibility to label products and have documentation using both metric and other units for as long as required by the market must be maintained.

In order to achieve the ultimate goal of harmonising units of measurement, we suggest that the Commission promotes communication on the benefits of the SI-system worldwide. This can be done by encouraging other countries to consider the use of the SI-system and by driving an educational process wherever relevant. Furthermore, we suggest regularly reviewing the situation and reporting on progress in order to judge whether further measures to encourage the use of the SI system might be required.

8. Do market operators face any problems with the current system?

NO. We are not aware of any significant problems with the current system. If some rare incidents arise from mistakes in comparing units of measurements from two different systems, we believe that the situation could be adequately improved by relevant training or information campaigns. The use of the SI system could be encouraged at world-wide level through persuasive and non-binding measures in close co-operation with all governments of industrialised countries, e.g. in the WTO. However, it should not hamper the level playing field conditions in international trade that should apply to the European industry and its trading partners.

9. Have all issues and alternatives concerning Directive 80/181/EEC been highlighted in the above text?

NO. In addition to the modification of clause 2 of Article 3 for the reasons mentioned in answer 7, we also suggest the deletion of clause 3 of Article 3 whereby "Member States may require that measuring instruments bear indications of quantity in a single legal unit of measurement". This may lead to unnecessary technical barriers to trade and costs for companies manufacturing measuring instruments for both metric and non-metric markets.

10. Indication of any costs and benefits that we expect to have as a result of any of the alternatives.

Should the continued permission to use supplementary indications of non-metric units not be granted, we foresee that our industry will face substantial and unnecessary costs. These will involve packaging, labelling and inventory lines. Such costs depend on the type of product, and in particular on whether multiple physical product variations will be needed. Based on experience a realistic estimate is that the one-off adjustment costs can be as much as 0.02 - 0.2 percent of the turnover. This means that the additional cost could top 125 million euros for EUR-25 exports to USA in TDC Chapter XVI alone (machinery and mechanical appliances; electrical equipment; parts). We believe that these costs are much greater than any benefit that can be derived from maintaining clauses 2 and 3 of Article 3 of the directive.

Moreover, based on experience from the product safety area we are afraid that Member States will not take the appropriate measures to establish an effective market surveillance system as from the 1st January 2010. This could lead to a situation where some manufacturers and/or importers will still use supplementary measure units which will lead to an uneven level-playing field.

TO CONCLUDE:

Thus we believe that at a time when the Commission is launching its drive towards simplification and reducing administrative costs, it would be incongruous to discontinue a measure, which effectively simplifies the life of manufacturers and importers.
