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Mandate to CEN on the revision of EN 590 to increase the concentration of FAME and FAEE to 10% v/v

1. Background

One of the significant measures aimed at increasing the security of energy supply in the EU as well as contributing in meeting the obligation to reduce the emission of greenhouse gases accepted by the EU at Kyoto is the introduction of biofuels for transport. The transport sector accounts for more than 30% of final energy consumption in the Community and its share is expanding. Biofuels must also be seen in the light of the indicative objective of doubling the share of renewable energy from at present 6% to 12% of the gross inland energy consumption as outlined in particular in the Commission's White Paper on Renewable Energy Sources that was endorsed by the Council and the European Parliament¹.

In its Resolution of 18 June 1998² the European Parliament called for an increase in the market share of biofuels to 2% over five years through a package of measures, including

¹ Communication from the Commission: Energy for the future: Renewable Energy Sources - White Paper for a Community Strategy and Action Plan (COM (97) 599 final) ; Council Resolution of 8 June 1998 on renewable sources of energy (OJ no. C 198, 24.6.1998, p. 1); Resolution of the European Parliament on the above Communication from the Commission (A4-0207/98)

² OJ C 210, 6.7.1998, p. 215.

tax exemption, financial assistance for the processing industry and the establishment of a compulsory rate of biofuels for oil companies.

Furthermore the European Council meeting at Gothenburg on 15 and 16 June 2001 agreed on a Community strategy for sustainable development consisting in a set of measures, which include the development of biofuels.

In May 2003, the European Parliament and the Council adopted a Directive on the promotion of the use of biofuels or other renewable fuels for transport³ through the co-decision procedure.

In recital (13 & 14) of this Directive it is stated “(13) *New types of fuel should conform to recognised technical standards if they are to be accepted to a greater extent by customers and vehicle manufacturers and hence penetrate the market. Technical standards also form the basis for requirements concerning emissions and the monitoring of emissions. Difficulties may be encountered in ensuring that new types of fuel meet current technical standards, which, to a large extent, have been developed for conventional fossil fuels. **The Commission and standardisation bodies should monitor developments and actively adapt and develop standards, particularly volatility aspects so that new types of fuel can be introduced, whilst maintaining environmental performance requirements.***

(14) Bioethanol and biodiesel, when used for vehicles in pure form or as a blend, should comply with the quality standards laid down to ensure optimum engine performance. It is noted that in the case of biodiesel for diesel engines, where the processing option is esterification, the standard prEN 14214 of the European Committee for Standardisation (CEN) on fatty acid methyl esters (FAME) could be applied. **Accordingly, the CEN should establish appropriate standards for other transport biofuel products in the European Union”.**

In addition and following the same approach recital (27) states: “*Measures should be introduced for developing rapidly the quality standards for the biofuels to be used in the automotive sector, both as pure biofuels and as a blending component in the conventional fuels.*”

³ 2003/30EC

It is noted that at present there are two liquid biofuels that are in widespread use as transport fuels in the various Member States, namely biodiesel (fatty acid methyl ester (FAME)) and bioethanol. A third one, bio-methane derived from biogas is in rather limited use in few countries, and at present its contribution as alternative fuel is relative small. For biodiesel EN 14214 has been developed by CEN.

The above position of the Parliament and the Council and the absence of standards for new types of biofuels and new blends of existing biofuels in fossil fuels provided the impetus for the Commission to submit this mandate to CEN.

2. Recent Developments

As a result of technological advances on engine performance and fuel quality, all vehicles currently in circulation in the European Union are capable of using a low biofuel blend (both bioethanol and biodiesel at 5%) without any problem. Recent technological developments make it possible to use higher percentages of biofuel in the blend. Some countries are already using biofuel blends of 10% and higher. In Sweden the fuel flexible vehicles are running on E85, a blend consisting of ethanol 85% and petrol 15%. In the Czech Republic national legislation allows blends of up to 30% FAME.

The European market is characterised by a significant and continuously growing demand for diesel fuel – more than 55% of the fuel used in the EU in 2005 for road transport was diesel. This is expected to grow even further at the expense of petrol. Therefore the demand for diesel fuel type replacements is significant greater than that for petrol and the European Commission with Member States is examining ways to effectively address this increased demand for diesel.

3. Reason for giving a mandate to CEN for the revision of EN 590

On the basis of recent estimates FAME production in the EU increased from about 1,434,000 tones in 2003 when the biofuels Directive came into force to an estimated amount of 2,700,000 tones in 2005 representing an increase of about 88% within a period of just 2 years. The biofuels Directive specifies a replacement of 5.75 % of all petrol and diesel on energy basis. Many actors in the fuel and automotive industry have expressed a preference for biodiesel to contribute towards this target at a higher rate than bioethanol, implying a likely biodiesel share of the diesel market of rather more than 5.75%. By contrast, the EN 590 standard for automotive diesel allows only 5 volume%. A 5 volume% corresponds to only 4.42 % on an energy basis while a 5.75 % replacement on energy basis corresponds to 6.5 volume%. While the target could in theory also be met through the use of high blends or pure biodiesel not covered by standard EN590, these are not in practice expected to make a sufficient contribution. Therefore unless the EN 590 standard is revised, it is unlikely that the targets of the biofuels Directive will be met.

Member States have taken the initiative to increase the allowed content of biodiesel in diesel beyond 5 volume% at least for captive fleets and it is generally recognised that the diesel engines of today can operate with a 10 volume% biodiesel blend without significant problems.

The European Union is already deliberating increasing the targets for replacing petrol and diesel for 2020. The spring European Council of 23-24 March 2006 stated that the new Energy Policy for Europe should include “Continuing the EU-wide development of renewable energies (road map) on the basis of an analysis by the Commission of how to achieve the existing targets (2010) and how to sustain in a cost-efficient manner the current efforts over the long-term e.g. considering to raise, by 2015, the share of renewable energies, considering a target of 15%, and the proportion of biofuels, considering a target of 8%.” An increase in the blending volume of biodiesel in diesel will also facilitate the energy security of the European Union and contribute significantly to meeting the Kyoto objectives.

4. Mandate

CEN is given the mandate to develop, as a first step:

- a) The revision of European Standard EN 590 (diesel) to reflect the different characteristics of FAME blended up to 10 % volume/volume in diesel compared to pure hydrocarbon diesel, whilst keeping aligned with Fuels Directive 98/70/EC and its amendments and also with the needs of existing generations of road vehicles, designed to operate with EN 590 diesel.⁴,
- b) Given the need to develop a compatible standard for fatty acid ethyl ester (FAEE) since CEN may produce European standards for FAEE, the revision of EN 590 (diesel) should also address the FAEE 10 % volume/volume in diesel compared to pure hydrocarbon diesel, whilst keeping aligned with Fuels Directive 98/70/EC and its amendments and also with the needs of existing generations of road vehicles, designed to operate with EN 590 diesel..

The revision of EN 590 will include no unnecessarily restrictive requirements, as long as the proper functioning in the intended applications can be guaranteed.

⁴ In parallel, EN 14214 is to be reviewed and revised if required.

In European Standards above any new properties added to the existing standard must apply whether the diesel includes FAME and/or FAEE or not.

The work to be conducted will respect the current requirements of the Directive 98/70/EC on the quality of petrol & diesel fuels. If in the course of the work conflicts arise with the requirements in 98/70 then these should be highlighted to the Commission Services.

CEN shall provide the Commission within 4 months after the acceptance of this standardisation mandate with a Work programme to be carried out.

The Commission may extend the scope of this mandate to cover other blends of FAME (and corresponding ones for FAEE) as the European market will develop, subject to the consultation of the Committee set up pursuant to Article 5 of the Directive 98/34/EC on technical standards and regulations and information society services⁵.

5. Bodies to be associated.

The elaboration of the standards should be undertaken in co-operation with the broadest possible range of interest groups, including international and European associations. Those invited to contribute to the work should include stakeholders from the relevant industries, ANEC⁶, ECOS⁷, NORMAPME⁸ and ETUI-REHS⁹.

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6. Execution of the mandate

6.1 CEN must provide the EC with a detailed Workprogramme and a timetable for the adoption of the standards needed to cover the work highlighted in section 4. CEN will execute the Workprogramme agreed with the EC.

⁵ OJ L 204 of 21.07.98, p. 37, as amended by Directive 98/48/EC (OJ L 217 of 5/8/98, p. 18).

⁶ European Association for the Co-ordination of Consumer Representation in Standardisation

⁷ European Environmental Citizens Organisations for Standardisation

⁸ European Office of Crafts, Trades and Small and Medium- Sized Enterprises for Standardisation

⁹ European Trade Union Institute - Research, Education, Health and Safety

- 6.2 The European standards adopted will have to be transposed into national standards and divergent national standards will have to be withdrawn from the catalogues of the Member States' national standardisation bodies within six months of the adoption of the European standards.
- 6.3 The standstill period referred to in Article 7 of Directive 98/34/EC of 22 June 1998 will commence on acceptance of this standardisation mandate by CEN.

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