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**I

R E P O R T

of the Committee on Economic and Monetary Affairs and Industrial Policy

on the Commission proposal for a Council directive concerning the efficiency requirements for new, hot-water boilers fired with liquid or gaseous fuels

(COM(90) 368 final - C3-0386/90 - SYN 294)

Rapporteur: Mr Pierre LATAILLADE

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*	= *Consultation procedure requiring a single reading*	**II	= *Cooperation procedure (second reading) which requires the votes of Members of Parliament for rejection or amendment*
**I	= *Cooperation procedure (first reading)*	***	= *Parliamentary assent which requires the votes of a major' Parliament*

C O N T E N T S

By letter of 14 November 1990 the Council consulted the European Parliament, pursuant to Article 100a of the EEC Treaty, on the Commission proposal for a Council directive concerning the efficiency requirements for new, hot-water boilers fired with liquid or gaseous fuels.

At the sitting of 10 December 1990 the President of Parliament announced that he had referred this proposal to the Committee on Economic and Monetary Affairs and Industrial Policy as the committee responsible and to the Committee on Energy, Research and Technology and the Committee on the Environment, Public Health and Consumer Protection for their opinions.

At its meeting of 11 January 1991 the Committee on Economic and Monetary Affairs and Industrial Policy appointed Mr Lataillade rapporteur.

It considered the Commission proposal and the draft report at its meetings of 10 and 11 January 1991, 27 and 28 February and 1 March 1991, and 18, 19, and 20 March 1991.

At the last meeting, on 19 March 1991, it adopted the draft legislative resolution unanimously.

The following took part in the vote: Beumer, chairman; Lataillade, rapporteur; Barton, Bernard-Reymond, Colom i Naval, Cox, de Donnea, Ernst de la Graete, Herman, Metten, Patterson, Riskaer Pedersen, Roumeliotis, Sboarina, Sisó Cruellas, Stevens, von Wogau, Wettig, Fitzgerald (for Ruiz-Mateos Jiménez de Tejada), Peter (for Fuchs) and Smith (for Rogalla).

The opinions of the Committee on Energy, Research and Technology and the Committee on the Environment, Public Health and Consumer Protection will be published separately.

The report was tabled on 20 March 1991.

The deadline for tabling amendments will appear on the draft agenda for the part-session at which the report is to be considered.

A

Commission proposal for a Council directive
concerning the efficiency requirements for new, hot-water boilers
fired with liquid or gaseous fuels

Commission text[1]	Amendments
Preamble and recitals unchanged	
(Amendment No. 1) Article 1	
This Directive applies to new, hot-water boilers fired by liquid or gaseous fuels with a nominal output equal to or greater than 10 kW but less than 400 kW, hereinafter called 'appliances'.	This Directive applies to new, mass produced boilers operating at a water temperature of not more than 105° and to new liquid- or gaseous-fuel burners, hereinafter called 'appliances'.

[1] For full text see COM(90) 368 final - OJ No. C 292, 22.11.1990, p. 8

(Amendment No. 2)
Article 2

For the purposes of this Directive the following definitions shall apply:	For the purposes of this Directive the following definitions shall apply:
- boiler: the boiler heating body-burner unit;	- boiler: appliance used to transfer heat generated by combustion to the water;
- rated output, expressed in kW: the calorific output laid down and guaranteed by the manufacturer as being maintainable during continuous operation while complying with the performance levels indicated by the manufacturer,	- burner: forced-air device which performs, sustains, and regulates the fuel-combustion process.
- useful efficiency, expressed in %: the ratio between the useful heat output transmitted to the boiler water and the product of the net calorific value at constant fuel pressure and the consumption expressed as a quantity of fuel per unit time,	Forced-air or vacuum boiler heating body-burner units shall be treated as appliances.
- part load, expressed in %: the ratio between the heat output of a boiler operating intermittently or at an output lower than the rated output and the heat output at that same rated output,	
- average temperature of the water in the boiler: the average of the water temperatures at the entry and exit of the boiler;	

(Amendment No. 3)
Article 3

The following shall be excluded from this Directive:	The following shall be excluded from this Directive:
- hot-water boilers fired with solid fuels,	- hot-water boilers fired with solid fuels,
- steam boilers,	- steam boilers,
- electric boilers,	- electric boilers,
- condensation boilers i.e. boilers with condensation of the water vapour contained in the fumes,	
- heat pumps	- heat pumps,
- hot-air generators,	- hot-air generators,
- equipment for the instantaneous preparation of sanitary hot water,	- equipment for the instantaneous preparation of sanitary hot water,
- boilers designed to be fired with fuels whose properties differ appreciably from the properties of liquid and gaseous fuels commonly marketed (industrial waste gas, blogas, etc.).	- boilers designed to be fired with fuels whose properties differ appreciably from the properties of liquid and gaseous fuels commonly marketed (industrial waste gas, blogas, etc.)

(Amendment No. 4)
Article 4(1)

1. Member States will take all useful steps to ensure that appliances cannot be put on the market and into service until they have satisfied the minimum performance standards set down in Article 5.	1. Member States will take all useful steps to ensure that appliances cannot be put on the market and into service until they have satisfied the essential requirements referred to in Article 5.

(Amendment No. 5)
Article 5

The appliances must comply with the following minimum useful efficiency levels:	1. The appliances must be so designed as to ensure rational use of energy matching the scientific and technical state of the art and taking account of safety and operational considerations.

1(a) Operating at rated output P_n expressed in kW, at an average temperature of the water in the boiler of 70°C:

useful efficiency
>= (84 + 2 log P_n)%

i.e., for the outputs listed below, by way of example, the following minimum values

86% for boilers of 10 kW
87% for boilers of 31.6 kW
88% for boilers of 100 kW
89% for boilers of 316 kW

(b) In the outpoint range between 10 kW and 31.6 kW inclusive, for gas boilers fitted with natural draught burners, the requirement is:

useful efficiency
>= (81 + 4 log P_n)%

2(a) Operating at 30% part load, at an average temperature of the water in the boiler of not less than 50°C:

useful efficiency
>= (80 + 3 log P_n)%

i.e., for the nominal outputs listed below, the following minimum values:

83% for boilers of 10 kW
84.5% for boilers of 316 kW
86% for boilers of 100 kW
87.5% for boilers of 316 kW

(b) In the output range between 10 kW and 31.6 kW inclusive, for gas boilers fitted with natural draught burners, the requirement is:

useful efficiency
>= (77 + 5 log P_n)%

Member States shall assume that appliances and equipment satisfy the above essential requirements where they comply with the appropriate national standards transposing the harmonized CEN standards published in the Official Journal of the European Communities.

2. The CEN will also establish the test methods to be used and will set appropriate production and measurement tolerances to be incorporated into the efficiency levels.

(Amendment No. 6)
Article 6

1. Quality labels can be attributed to appliances showing higher performance levels than the requirements set out in Article 5. For each extra point in both nominal load efficiency and part-load efficiency a '*' shall be attributed, i.e.	1. Quality labels can be attributed to appliances according to a performance scale laid down by the CEN.

(Amendment No. 7)
Article 7

1. Before launching on the market boiler bodies and burners commercialized separately, the manufacturers, agents or importers must obtain certificates specifying the parameters that will allow, after assembling, to reach the minimum useful efficiency set out in Article 5	1. Before launching appliances on the market, the manufacturers, agents or importers must obtain certificates guaranteeing that their appliances conform to the provisions of Article 5.
If applicable, these certificates will also attribute quality labels provided for in Article 6.	
2. Before launching on the market complete appliances the manufacturers, agents or importers must obtain certificates guaranteeing their ability to reach the minimum useful efficiency set up in Article 5.	2. In addition, where boiler bodies and burners are commercialized separately, the manufacturers, agents or importers must supply accompanying particulars with the appliances specifying the technical parameters that attest to their mutual compatibility with a view to ensuring compliance, after assembling, with the provisions of Article 5.
If applicable, these certificates will also attribute quality labels provided for in Article 6.	
Boiler bodies and burners thus being successfully certified can be marketed separately through a relevant indication of burners and boiler bodies, that will allow to reach the minimum useful efficiency set out in Article 5 and the quality label provided for in Article 6.	

Articles 8-10 unchanged

DRAFT LEGISLATIVE RESOLUTION
(Cooperation procedure: first reading)

embodying the opinion of the European Parliament
on the Commission proposal for a Council directive
concerning the efficiency requirements for new, hot-water boilers
fired with liquid or gaseous fuels

The European Parliament,

- having regard to the Commission proposal to the Council (COM(90) 368 final - SYN 294)[1],

- having been consulted by the Council pursuant to Article 100a of the EEC Treaty (C3-0386/90),

- having regard to the report of the Committee on Economic and Monetary Affairs and Industrial Policy and the opinions of the Committee on Energy, Research and Technology and the Committee on the Environment, Public Health and Consumer Protection (A3-0063/91),

- having regard to the Commission position on the amendments adopted by Parliament,

1. Approves the Commission proposal subject to Parliament's amendments and in accordance with the vote thereon;

2. Calls on the Commission to amend its proposal accordingly, pursuant to Article 149(3) of the EEC Treaty;

3. Asks to be consulted again should the Council intend to make substantial modifications to the Commission proposal;

4. Calls on the Council to incorporate Parliament's amendments in the common position that it adopts in accordance with Article 149(2)(a) of the EEC Treaty;

5. Instructs its President to forward this opinion to the Council and Commission.

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[1] OJ No. C 292, 22.11.1990, p. 8

B

EXPLANATORY STATEMENT

I. Content of the proposal for a directive

1. Existing rules and how they are being applied

The building industry (residential and commercial) is the prime energy-consumption sector (taking more than 41% of final consumption of energy in the Community), hence the importance of action to improve energy efficiency.

The two existing directives, 78/110/EEC and 82/855/EEC relate to the performance of heat generators and have so far been inadequately interpreted and applied. The minimum performance levels laid down by these directives had to be economically justifiable, which terms have been subject to extremely varied interpretation by the Member States (economic justification assessed only over the short term taking account only of impact on sales price and not running costs and the social cost of pollution).

Transposition of these directives into national measures has also resulted in widely differing requirements.

The outcome has been substantial divergence between the Member States both in qualitative (measurement of performance on the useful heat supplied, measured in the laboratory, or only taking into account heat losses resulting from the discharge of hot gases at the stack) and quantitative terms (performance requirements varying between 74 and 90% of rated output).

The completion of the internal market would thus allow less efficient equipment to gain access to markets now closed to them by national measures laying down higher minimum performance levels. The result would be a drop in energy efficiency in the Community.

2. Purpose of the proposal

(a) Field of application

The directive concerns only hot-water boilers fired with liquid or gaseous fuels with a rated output between 10 and 400 KW. Solid fuel boilers are excluded because of the difficulty in laying down minimum performance levels in view of the variability of the fuels used: and because the market is small, at 1-5% in most Member States, and in constant decline. Steam boilers, electric boilers, heat pumps, etc. are also excluded as their performance is assessed by widely varying methods.

(b) Minimum performance levels to be met

Useful efficiency means the quantity of heat transferred to the water circulating in the boiler in relation to the quantity of energy injected into the boiler.

The minimum performance levels set by the directive increase in linear fashion with the rated output of the boiler (between 86 and 89%, and between 83 and 87.5% at part load)[2]. The Commission believes these figures to be high but realistic as requirements higher than these values are already the subject of voluntary labels in various Member States and a number of EFTA countries.

(c) Quality labels

The directive also provides for quality labelling by way of one star per efficiency point above the rated and part-load requirements. This should encourage competition between manufacturers and arouse consumer interest in high performance equipment.

(d) Performance checks

Checks on chimney losses alone are not sufficient to take account of performance levels at rated output and at reduced load. The Commission is therefore recommending that checks are carried out on measuring benches before the equipment is placed on the market. All these provisions come into force on 1 January 1993.

II. Assessment of the proposal

1. Scope of the directive in the context of energy saving

As the average life of central heating boilers is between 15 and 20 years, the directive will not have its full effect until the year 2010.

The new performance requirements should allow between 5 and 7% reductions in the consumption of fuel, i.e. energy saving of between 7.6-10.3 m toe/year.

Moreover, mass production of boilers meeting these new requirements would bring economies of scale. From an environmental point of view, lower energy consumption would result in reduced CO_2 and SO_2 emissions (estimated 19-20 mt and 16 kt - 21 kt a year). For the consumer the slight additional investment would soon be offset by the fuel savings made (and a reduction in the negative effect of over-dimensioning of boilers, because of the high performance required at part load).

In macroeconomic terms the fossil fuel savings could amount to m ECU 1200-1500 per year.

The proposal for a directive should therefore be approved in principle.

However, some comments on individual aspects of the proposal are called for.

2. A general risk of inconsistency

The Commission has chosen a maximalist approach which it does, however, regard as realistic. In fact only five Member States (Belgium, Denmark, Luxembourg, the Netherlands and Germany) at present apply efficiency standards equal to or

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[2] The Commission figures for boilers of 10, 31.6, 100 and 316 kW are indicative rather than sub-categories

higher than those proposed in the directive. In doing so the Commission is giving priority to energy saving and environmental protection.

This is in line with the requirement for higher consumer protection in Article 100a(3) of the Treaty.

However, on the basis of Directive 90/396 on gas appliances, the CEN has already drawn up a draft standard EN 297 on gas boilers of 70 kW or less, and is preparing two others, EN 303 and EN 304, on liquid-fired boilers. The figures and requirements laid down in these standards (both as regards output and the fuels used) differ from those adopted in the directive. The CEN standards seem to be based more on an average of the performance levels obtained in the industries in the various Member States. The CEN is also seeking to lay down two efficiency standards, a low one which could apply to a number of Member States (Mediterranean countries where climate is less of a constraint) and the other higher.

It is not really Parliament's business to make decisions on a highly technical matter. It is, however, its business to regret these divergent approaches and point out the resulting risk of inconsistency. Given the complexity of the subject, the Commission would be better advised to ask the CEN to lay down harmonized standards - to be published in the Official Journal - that would draw on the present level of expertise to meet the essential requirements related to rational use of energy and safety and operational considerations. Therein would lie the means of reconciling the energy and environmental objectives and industrial constraints applying in a field where the notions of safety and efficiency cannot be separated.

3. Vague and unrealistic provisions

The second group of remarks relate to the vagueness and impracticality of some of its provisions.

(a) Vagueness regarding inspection methods

Even when coherent efficiency standards for these appliances have been laid down, they will still have to be measured, using methods which cannot be called into question.

Here the proposal is too vague. Should we first be examining one single inspection method, whatever kind of fuel is used? And then, how can performance be checked accurately in practice on the measuring bench if, as the Commission states, this type of check is to be adopted (in preference to measurement of chimney losses only)? In the light of the difficulties, therefore, the CEN should lay down the test methods to be applied.

(b) Impractical quality labels

While competition between manufacturers should be encouraged by introducing quality labels, to propose, as the Commission does, granting a star for every 1% efficiency increase is completely unrealistic, as the average margin of error in this field is 2%. Instead, quality labels should be awarded according to a performance scale laid down by the CEN.

(c) Over-restriction of the field of application

The directive excludes boilers of over 400 kW output. The Commission seeks to justify this by the fact that industrial-type boilers are subject to technical inspection and that the general trend is towards linking medium output boilers. However, the figure of 400 kW would appear to be fairly arbitrary. It would therefore seem desirable to extend the scope of the directive to cover all mass-produced boilers.