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EUROPEAN COMMISSION

Brussels, 7.7.2010  
COM(2010)362 final

2010/0195 (COD)

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Directive 97/68/EC as regards the provisions for engines placed on the market  
under the flexibility scheme**

**SEC(2010)828**

**SEC(2010)829**

**(Text with EEA relevance)**

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE PROPOSAL

Directive 97/68/EC on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (hereafter “the Directive”) regulates the maximum exhaust emissions carbon oxide (CO), hydrocarbons (HC), nitrogen oxides (NO<sub>x</sub>) and particulates (PM) from diesel engines installed in construction, agricultural and forestry machinery, railcars & locomotives, inland waterway vessels, constant speed engines and small petrol engines used in different types of machinery.

The Directive foresees emissions limit stages of increasing stringency with corresponding compliance dates. Manufacturers must ensure that new engines comply with these limits in order that they can be placed on the market.

Directive 2004/26/EC<sup>1</sup> introduced the current applicable stage of emission limits for the majority of diesel engines referred to as Stage III A. These limits will be replaced by the more stringent Stage III B limits progressively as of 1<sup>st</sup> January 2011. The type approval period for these engines has started from 1<sup>st</sup> January 2010. A great diversity of machinery production (approximately 1500 companies in the EU) is affected.

To comply with Stage III B limits, current engines will need to be substantially modified. Changes to the configuration, size or weight of engines have a knock-on effect for Original Equipment Manufacturers (OEM) who will have to adapt completely the design of their machines in order to accommodate the modified engines. This process can only start once the engine is fully developed. Technical solutions for complying III B engines are not in general yet finalised. Thus, OEMs are not in a position to fully redesign the machinery where the engine is to be installed. While for some of them, the Stage III B emissions requirements will not pose very significant problems, in other non-road mobile machinery a Stage III B compliant engine is far from being finalised and substantial further research and technological development is needed to ensure that machinery can be placed on the market with compliant III B engines.

Compliance costs for manufacturers to cope with the new emission limits are significant. These costs include for example research and development costs, equipment redesign costs, after treatment devices costs, documentation and labelling costs, etc.

From autumn 2008 onwards most of the Union based industry producing non-road mobile machinery has been unexpectedly and severely hit by the global financial and economic crisis. Namely construction equipment and agricultural machinery are heavily affected. For railcars the crisis has negative impacts, however, less severe. In general, sudden falls in sales caused a large decrease in income and available capital to finance the necessary technology research and development for machinery with Stage III B compliant engines in all power categories and applications within the time limits in the Directive.

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<sup>1</sup> OJ L 225, 25.6.2004, p.3

Directive 2004/26/EC also introduced the so-called flexibility scheme to facilitate the transition between the different emission stages. The flexibility scheme allows the OEM to place on the market, during the period between two successive stages of exhaust emissions limit values, a limited number of non-road mobile machines which are fitted with engines that still comply with the exhaust emission limits of the previous stage. The flexibility scheme applies to compression ignition (diesel) engines used in construction, agricultural and forestry machinery, generator sets and pumps using constant speed engines, but not to locomotives, railcars and inland waterway vessels. It allows the OEM either to place on the market (1) for each engine power category a limited number of machines not exceeding 20% of the OEM's annual sales of machinery (calculated as the average machinery sales in the EU of the latest 5 years) or (2) a fixed number of machines as stipulated in the Directive. This second option is intended for smaller enterprises producing lower volumes of engines.

It is proposed to modify the provisions of the flexibility scheme to further mitigate the economic costs of the transition of emission Stages III A to III B by extending its application for some type of non-road mobile machinery while maintaining the entry into force of the exhaust emission limit Stage III B to preserve the objective of the Directive to reduce emissions of gaseous and particulate pollutants in the Union. The Impact Assessment accompanying this proposal provides detailed information on the different options which have been assessed in order to mitigate the impact of the economic crises on OEMs. The assessment concluded that manufacturers will not be able to place in the near future Stage III B compliant locomotives on the market, as more research is required, and consequently extending the proposed flexibility measures to engines used in locomotives did not appear relevant. In 2010 intensive discussions took place with experts from industry and Member States to assess the situation for locomotives, which had over time evolved. It allows the Commission to conclude that some engine manufacturers have progressed in the meantime in developing compliant IIIB engines for locomotives while OEMs will yet not be entirely ready to place III B compliant locomotives on the market by 1st January 2012 as foreseen in the Directive. Therefore it appeared necessary to apply the flexibility scheme also to locomotives. The analyses concluded that this extension will have a very limited impact on the environment, while at the same time it will allow railway companies to realise the necessary investments.

## **2. CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT**

Representatives of Member States and Industry stakeholders have been consulted on the proposal through the Group of Experts on Machinery Emissions under the Directive (GEME). In addition the Commission carried out between May and June 2009 an in-depth consultation of Member States authorities and all relevant stakeholders, i.e. industry, environmental organisations, workers associations. The proposal takes into account a Technical Review of the Directive<sup>2</sup> by the Joint Research Centre (JRC) which includes, inter alia, an evaluation of the need to amend the provisions of the flexibility scheme; an Impact Assessment study by an external consultant<sup>3</sup> to assess the impacts of the proposed policy options as laid down in the draft Technical Review of JRC, two complementary studies on the impacts for the rail sector

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<sup>2</sup> The draft final report of the Technical Review is available on the NRMM web page at the Europa website : [http://ec.europa.eu/enterprise/mechan\\_equipment/emissions/2007tecrew\\_dfr.pdf](http://ec.europa.eu/enterprise/mechan_equipment/emissions/2007tecrew_dfr.pdf)

<sup>3</sup> The final report of the IA study by ARCADIS N.V. is available on the NRMM web page at the Europa website: [http://ec.europa.eu/enterprise/mechan\\_equipment/emissions/impactassessment/nrmm\\_iastudy\\_fnrep.pdf](http://ec.europa.eu/enterprise/mechan_equipment/emissions/impactassessment/nrmm_iastudy_fnrep.pdf)

(railcars, locomotives) and the impacts of the options of the Technical Review of JRC, including consequences of an amendment of the flexibility scheme for SMEs<sup>4</sup>.

A detailed Impact Assessment accompanying this proposal has been carried out on the basis of the technical studies and the stakeholder consultation. It covers the different scenarios for engines covered by the existing flexibility scheme and identifies the need to include railcars. In addition to the conclusions of the Impact Assessment locomotives have been added to the flexibility scheme.

The Impact Assessment analyses different options ranging from the implementation of a scrapping scheme, variations of the flexibility scheme as regards the allowed percentage/number of engines to the set-up of a trading system whereby firms that would not use the entire flexibility could sell their flexibility rights to firms that need additional flexibility. The use of a scrapping scheme has been discarded as it is not suitable to assist OEMs in financing R&D to make Stage III B machinery available. The set-up of a flexibility trading system was considered as a too complex system in a short time scale and thus disproportionate to the expected achievements

The option to increase the existing flexibility scheme and enlarge it to sectors not yet included has been considered as the best option balancing the environmental impact and an economic benefit in saved compliance costs for a limited period of time.

### **3. LEGAL BASIS**

The aim of Directive 97/68/EC, as well as this proposed amendment, is to contribute to the smooth functioning of the internal market for engines to be installed in non-road mobile machinery while protecting human health and the environment. The legal basis is thus Article 114 of the Treaty.

### **4. AMENDMENTS**

The proposal foresees the following amendments to Directive 97/68/EC:

- An increase of the percentage of the number of engines used for application in land based machines, placed on the market under the flexibility scheme in each engine category from 20% to 50% of the OEM's annual sales of equipment and an adaptation of the maximum number of engines that may be placed on the market under the flexibility scheme as an optional alternative, in the period between emission Stage III A to emission Stage III B.
- An inclusion of engines used for the propulsion of railcars and locomotives in the flexibility scheme providing the possibility for the OEM to place on the market a limited number of engines under the flexibility scheme.
- These measures will expire on 31 December 2013.

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<sup>4</sup> The additional IA study on rail and inland waterway sector is available on the NRMM web page at the Europa web site : [http://ec.europa.eu/enterprise/mechan\\_equipment/emissions/projstudies.htm](http://ec.europa.eu/enterprise/mechan_equipment/emissions/projstudies.htm)

**5. BUDGETARY IMPLICATION**

The proposal has no implication for the Union's budget.

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Directive 97/68/EC as regards the provisions for engines placed on the market under the flexibility scheme**

**(Text with EEA relevance)**

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission<sup>5</sup>,

Having regard to the opinion of the Economic and Social Committee<sup>6</sup>,

Having regard to the opinion of the Committee of the Regions<sup>7</sup>,

Acting in accordance with the procedure laid down in Article 294 of the Treaty<sup>8</sup>,

Whereas:

- (1) Directive 97/68/EC<sup>9</sup> concerns exhaust emissions from engines installed in non-road mobile machinery. The current emission limits applicable to type approval of the majority of compression ignition engines under Stage III A are to be replaced by the more stringent limits under Stage III B. Those limits apply from 1<sup>st</sup> January 2010 as regards the type approval for those engines and from 1 January 2011 with regard to the placing on the market.
- (2) The transition to Stage III B involves a step change in technology requiring significant implementation costs for redesigning the engines and for developing advanced technical solutions. The transition occurs at the same time when industry faces severe economic difficulties.
- (3) Directive 97/68/EC provides for a flexibility scheme to allow equipment manufacturers to purchase, in the period between two emission stages, a limited quantity of engines that do not comply with the current emission limit values, but are approved to the nearest previous stage of emission limits.

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<sup>5</sup> OJ C [...], [...], p. [...].

<sup>6</sup> OJ C [...], [...], p. [...].

<sup>7</sup> OJ C [...], [...], p. [...].

<sup>8</sup> OJ C [...], [...], p. [...].

<sup>9</sup> OJ L 59, 27.2.1998, p.1.

- (4) Article 2 (b) of Directive 2004/26/EC<sup>10</sup> foresees the evaluation of the possible need for additional flexibilities.
- (5) During the transition from Stage III A to Stage III B, the percentage of the number of engines used for application other than propulsion of railcars and locomotives placed on the market under the flexibility scheme, should be increased from 20% to 50% of the equipment manufacturer's annual sales of equipment with engines in that category. The maximum number of engines that may be placed on the market under the flexibility scheme should be adapted accordingly.
- (6) The rules applicable to the flexibility scheme should be adapted to extend the application of that scheme to engines for use in propulsion of railcars and locomotives.
- (7) The measures provided in this Directive reflect a temporary difficulty faced by the manufacturing sector. They should therefore be restricted to the transition from Stage III A to Stage III B and expire by 31 December 2013 at the latest.
- (8) Directive 97/68/EC should therefore be amended accordingly.

HAVE ADOPTED THIS DIRECTIVE:

#### *Article 1*

Directive 97/68/EC is amended as follows:

1. Article 4(6) is replaced by the following:

"(6) Compression ignition engines for use other than in propulsion of inland waterway vessels may be placed on the market under a flexibility scheme in accordance with the procedure referred to in Annex XIII in addition to paragraphs 1 to 5."
2. Article 10 is amended as follows:
  - (a) Paragraph 7 is replaced by the following:

"(7) Member States shall permit the placing on the market of engines, as defined in Section 1 of Annex I under A(i), A(ii), A(iv) and A(v), under the flexibility scheme in accordance with the provisions in Annex XIII."
  - (b) The following paragraph 8 is added:

"(8) The flexibility scheme, in accordance with the provisions of Section 1.2 of Annex XIII, shall apply only for the transition from Stage III A to Stage III B and expire on 31 December 2013."
3. Annex XIII is amended in accordance with the Annex to this Directive.

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<sup>10</sup> OJ L 146, 30.4.2004, p.1.

## Article 2

### Transposition

1. Member States shall adopt and publish, by [Twelve months after the publication of the Directive] at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive.

They shall apply those provisions with effect from [Day, Month, Year = following day of application date].

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

## Article 3

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

## Article 4

This Directive is addressed to the Member States.

Done at Brussels, [...]

*For the European Parliament*  
*The President*  
[...]

*For the Council*  
*The President*  
[...]

## ANNEX

Section 1 of Annex XIII is replaced by the following:

### "1. ACTIONS BY THE ENGINE MANUFACTURER AND THE OEM

1.1. With the exception of the transition period between Stage III A and Stage III B, an OEM that wishes to make use of the flexibility scheme shall request permission from any approval authority to purchase from his engine suppliers, the quantities of engines described in sections 1.1.1. and 1.1.2., that do not comply with the current emission limit values, but are approved to the nearest previous stage of emission limits.

1.1.1. The number of engines placed on the market under a flexibility scheme shall, in each engine category, not exceed 20% of the OEM's annual sales of equipment with engines in that engine category (calculated as the average of the latest 5 years sales on the EU market). Where an OEM has marketed equipment in the EU for a period of less than 5 years the average will be calculated based on the period for which the OEM has marketed equipment in the EU.

1.1.2. As an optional alternative to section 1.1.1 and with the exception of engines for use in propulsion of railcars and locomotives, the OEM may seek permission for his engine suppliers to place on the market a fixed number of engines under the flexibility scheme. The number of engines in each engine category shall not exceed the following values:

Engine Category (kW)	Number of Engines
19-37	200
37-75	150
75-130	100
130-560	50

1.2 During the transition period from Stage III A to Stage III B, with the exception of engines for use in propulsion of railcars and locomotives, an OEM that wishes to make use of the flexibility scheme shall request permission from any approval authority to purchase from his engine suppliers, the quantities of engines described in sections 1.2.1. and 1.2.2., that do not comply with the current emission limit values, but are approved to the nearest previous stage of emission limits.

1.2.1. The number of engines placed on the market under such flexibility scheme shall, in each engine category, not exceed 50% of the OEM's annual sales of equipment with engines in that engine category (calculated as the average of the latest 5 years sales on the EU market). Where an OEM has marketed equipment in the EU for a period of less than 5 years the average will be calculated based on the period for which the OEM has marketed equipment in the EU.

- 1.2.2. As an optional alternative to section 1.2.1., the OEM may seek permission for his engine suppliers to place on the market a fixed number of engines under the flexibility scheme. The number of engines in each engine category shall not exceed the following values:

Engine Category (kW)	Number of engines
37-56	200
56-75	175
75-130	250
130-560	125

- 1.3 As regards engines for use in propulsion of railcars, the flexibility scheme as defined in section 1.1.1. shall be applicable as from the transition period between Stage III A and Stage III B.
- 1.4 As regards engines for use in propulsion of locomotives, during the transition period between Stage III A and Stage III B an OEM may seek permission for his engine suppliers to place on the market a maximum of 12 engines for use in propulsion of locomotives under the flexibility scheme.
- 1.5. The OEM shall include in his application to an approval authority the following information:
- (a) a sample of the labels to be affixed to each piece of non-road mobile machinery in which an engine placed on the market under the flexibility scheme will be installed. The labels shall bear the following text: "MACHINE NO ... (sequence of machines) OF ... (total number of machines in respective power band) WITH ENGINE No ... WITH TYPE APPROVAL (Dir. 97/68/EC) No ...";
  - (b) a sample of the supplementary label to be affixed on the engine bearing the text referred to in section 2.2. of this Annex.
- 1.6. The OEM shall provide the approval authority with any information connected with the implementation of the flexibility scheme that the approval authority may request as necessary for the decision.
- 1.7. The OEM shall provide any requesting type approval authority in the Member States, with any information that the type approval authority requires in order to confirm that any engines claimed to be, or labelled as being, placed on the market under a flexibility scheme is properly so claimed or labelled.

**LEGISLATIVE FINANCIAL STATEMENT FOR PROPOSALS HAVING A BUDGETARY IMPACT EXCLUSIVELY LIMITED TO THE REVENUE SIDE**

**1. NAME OF THE PROPOSAL:**

Directive of the European Parliament and of the Council amending Directive 97/68/EC as regards the provisions for engines placed on the market under the flexibility scheme

**2. BUDGET LINES:**

Chapter and Article: Not applicable

Amount budgeted for the year concerned:

**3. FINANCIAL IMPACT**

- Proposal has no financial implications
- Proposal has no financial impact on expenditure but has a financial impact on revenue – the effect is as follows:

(€million to one decimal place)

Budget line	Revenue <sup>11</sup>	12 month period, starting dd/mm/yyyy	[Year n]
Article ...	<i>Impact on own resources</i>		
Article ...	<i>Impact on own resources</i>		

Situation following action					
	[n+1]	[n+2]	[n+3]	[n+4]	[n+5]
Article ...					

<sup>11</sup> Regarding traditional own resources (agricultural duties, sugar levies, customs duties) the amounts indicated must be net amounts, i.e. gross amounts after deduction of 25 % of collection costs

Article ...					
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**4. ANTI-FRAUD MEASURES**

Not applicable

**5. OTHER REMARKS**

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