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COMMISSION STAFF WORKING PAPER
EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT

Accompanying the document

**Proposal for a
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Directive 94/25/EC on the approximation of the laws, regulations and
administrative provisions of the Member States relating to recreational craft, as
amended by Directive 2003/44/EC**

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1. PROBLEM DEFINITION

The Recreational Craft Directive 94/25/EC (RCD) regulates the placing of boats intended for sports or leisure purposes on the EU market. It lays down essential safety requirements. The amended Directive 2003/44/EC introduced specific requirements for exhaust emissions from recreational marine engines, in particular hydrocarbons (HC), nitrogen oxides (NO_x) and particulate matters (PM) and craft's noise emissions,

Despite the fact that the contribution of recreational craft to the overall air pollution in the EU is minor compared with other pollution sources, it can be significant in certain peak times (summer) for certain areas (particularly lakes and some seashores). Especially, the concentration of NO_x may exceed the environmental quality standards (EQS) in these areas.

The vast majority of RCD manufacturers is active on the EU market and the US market and two thirds of worldwide sales of recreational marine engines are realized at both markets. US legislation regulating the exhaust emissions is stricter than the current EU rules. Some EU Member States have undertaken efforts to reduce emissions from recreational craft by resorting to local (national) measures for speed limits or ban of boats in specific areas. In order to better protect the environment, ensure a global market for RCD and to prevent national single solutions leading to a fragmentation of the Internal Market it is necessary to assess whether the exhaust and noise emissions should be strengthened at EU level. At the same time the vulnerable position of the SMEs should be taken into account as the recreational craft sector consists mainly of small and medium sized enterprises (more than 95% of businesses are SMEs).

2. ANALYSIS OF SUBSIDIARITY

The subsidiary principle is respected by the proposal, since the Directive already harmonises the placing on the market for the RCD and Member States cannot take action individually with regard to safety requirements and requirements for limiting exhaust and noise emissions.

3. OBJECTIVES

The overall objective of this initiative is to further improve the environmental performance of recreational craft and thus to better protect the environment and human health, while at the same time ensure equal regulatory conditions with the EU main trading partners and a smooth functioning of the internal market for RCD.

GENERAL	SPECIFIC	OPERATIONAL
Protect environment and human health	Improve the environmental performance of recreational craft	Revise exhaust emission limits. Revise limits for noise emissions

		Revise safety characteristics of the recreational craft
Improve the functioning of the internal market	Prevent fragmentation of the internal market caused by different national requirements on the characteristics of recreational craft	Revise exhaust emission limits.
	Protect vulnerable enterprises (SMEs in particular) from the worsening their position on the market and potential job losses because of complying with the new legislation.	Introduce mitigating measures for the most vulnerable recreational craft market operators in Europe (SMEs).
	Provide the EU recreational craft industry as well as citizens with legal certainty.	Align the RCD with the NLF
Promote the approximation of the emission limits worldwide	Reduce additional compliance costs from different regulatory regimes	Revise exhaust emission limits.

4. POLICY OPTIONS

A wide range of options to achieve the above mentioned objectives has been taken into consideration. Some options as self regulation for exhaust emissions (voluntary code of the industry) or discontinuing existing EU action by repealing the exhaust and noise emission limits from the Directive and a labelling requirement only have been discarded at an early stage as they are obviously not suited to tackle the identified problems. The following options have been retained for further analysis.

A. Exhaust emission limits for engines

Option 1 - No change

The existing exhaust emission limits in the Directive remain.

Option 2 - Stricter exhaust emission limits (Stage II)

The possibility of introducing a new stage II of exhaust emission limits has been assessed. Five possible scenarios have been analysed. Scenario 1 is based on the harmonisation of Stage I limits for all petrol (SI) engines and aligns the limits for diesel (CI) engines with the existing rules in the Non Road Mobile Machinery Directive 97/68/EC (NRMM). Scenarios 2-4 concern an alignment of the SI engine limits with the US standards and CI engine limits with the EU NRMM legislation with different levels of stringency. Scenario 5 harmonises the limits with the US for SI and CI engines. Scenario 5 as the most suitable scenario was selected for further evaluation and became Option 2 in the analysis of impact.

Option 3 - Stricter exhaust emission limits (Stage II) combined with mitigating measures for the industry

This option is based on Option 2 but further divided into 3 Sub-options containing mitigating measures to limit negative economic and social effects of higher emission limits.

Sub-option 3.1 – Use of a flexibility scheme

An option to mitigate the effects of stricter exhaust emission rules might be the introduction of a flexibility scheme as established in Art. 4 of Directive 97/68/EC. This would allow engine manufacturers to place on the market a fixed limited number of recreational marine engines compliant with the previous stage of emissions, still after the entry into force of new emission limit values.

Sub-option 3.2 – Use of a transitional period for all engine manufacturers (3 years)

This option foresees to provide a three years transitional period after the entry into force of the Directive in order to allow industry to adapt the engines to the new technologies. The period would start from the entry into force of the Directive, meaning that approximately two years would overlap with the transposition period of the Directive, leaving one extra year for adaptations.

Sub-option 3.3 – Use of a transitional period for all engine manufacturers + a specific transitional period for small and medium sized engine manufacturers placing on the EU market the SI outboard engines ≤ 15 kW (3+3 years)

This option combines a transitional period as a general mitigating measure for the engine manufacturers with a specific measure directed on SME's as those are proved to be (by the SME test) the most vulnerable in terms of compliance costs.

B. Noise emission limits for engines.

Option 1 - No change

The existing noise emission limits in the Directive remain.

Option 2 – Stricter noise emission limits

The current EU noise emission limits regulating the sound emitted by the recreational craft would be tightened.

C. Alignment of the RCD with the New Legislative Framework

Consequently to the adoption of Regulation (EC) No 765/2008 and of Decision 768/2008/EC, the Recreational Craft Directive has to be brought in line with the principles of New Legislative Framework. It means basically the inclusion of obligations of economic operators, the competences of conformity assessment bodies and market surveillance authorities, new conformity assessment modules and the status of CE marking.

5. ANALYSIS OF IMPACTS

A. Impact of stricter exhaust emissions limits

Option 1 - No change of limits

There are two main concerns related to the impacts of this option: environmental and trade concern. Firstly, NO_x concentrations may exceed the environmental quality standards in coast marinas for the short term. Secondly, if the current limits would continue to apply, the engine manufacturers may be tempted to install more polluting engines complying with the Stage I instead of the cleaner but more expensive engines complying with the US standards. Secondly this option entails the risk of a fragmentation of the Internal Market due to the likely adoption of diverse regional regulations for speed limits etc.

Option 2 – Stage II of the exhaust emissions limits

The restriction of the exhaust emission levels aligning the EU and the US limits for the recreational marine engines would bring an environmental improvement but also high compliance costs for the engine manufacturers.

Value of damage avoided / year compared to Option 1

	Average annual damage savings (M€) / tonne of emissions (NO_x)	Average annual damage savings (M€) / tonne of emissions (PM)
Option 2 - Stage II	9,5 M€ - 45,5 M€	3,2 M€ - 18,2 M€

Estimation of total compliance costs / year

	CI Engines	SI Engines
Option 2 - Stage II	5,7 M€ - 19 M€	5,1 M€ - 10,6 M€

Option 3 – Stage II of the exhaust emissions limits combined with various kinds of mitigating measures for engine manufacturers

Complying with stricter emission standards will entail additional costs. Therefore measures to mitigate economic and social costs have been assessed.

Sub-option 3.1 – Use of a flexibility scheme

The use of the flexibility scheme has not been retained. It is designed for a special situation where an original equipment manufacturer needs additional lead time for adjusting the machinery design to new developed engines but not for the engine manufacturer as such.

Sub-option 3.2 — Use of a transitional period for all engine manufacturers

The aim of this option to grant a transitional period of three years to manufacturers reflects the flexibilities granted in the US as well as the time when the exhaust emission limits will become fully applicable in the US. The production of majority of engine manufacturers should comply with these limits already.

Value of damage avoided / year compared to Option 1

	Average annual damage savings (M€) / tonne of emissions (NOx)	Average annual damage savings (M€) / tonne of emissions (PM)
Sub-option 3.2 - Stage II + Additional transition period	7,1 M€ - 34,2 M€	2,4 M€ - 13,7 M€

Estimation of total compliance costs / year

	CI Engines	SI Engines
Sub-option 3.2 - Stage II + Additional trans. period	2 M€ - 8 M€	1,8 M€ - 5 M€

Use of a transitional period allows companies to mitigate the negative economic impacts of stage II limits and is at the same time not burdensome in terms of administration. However, an SME test has been carried out as it might not be fully adapted for the special needs of SMEs.

The SME test has revealed that complying with the new emission limits entails additional compliance and partly administrative costs. SMEs do not have the liquidity and an access to finance compared to bigger companies to finance these investments. The stakeholders' consultations showed that SME SI engine manufacturers producing low power engines will be the ones to have serious difficulties to comply with the Stage II limits. Low power SI

outboard engines (i.e. $P_N \leq 15$ kW) are affected as it requires high investment to develop such an engine which complies with the more stringent emission limits. Due to the lower revenue of low power engines, the payback time is longer than for the high power engine categories.

Sub-option 3.3 – Use of a transitional period for all engine manufacturers + a specific transitional period for small and medium sized engine manufacturers placing on the EU market the SI outboard engines ≤ 15 kW (3+3 years).

The environmental impact of this mitigating measure is estimated at about 6,16 tons/year of HC+NOx emissions more comparing to Sub-option 3.2. It would represent 0,015 % of the total annual HC+NOx emissions. This figure does not make a real difference in the overall annual exhaust emissions from recreational crafts. With the additional transitional period of 3 years, the small and medium sized SI engine manufacturers will not be forced to discontinue this production. The worldwide market share of small and medium sized SI engine manufacturers is about 0,5%. Therefore the additional mitigating measure to those manufacturers has a marginal effect on the market.

Comparison of the options

	Average annual emission change of HC+NOx (%)	Average annual emission change of PM (%)	Average annual emission change of CO (%)
Option 2 – Stage II of the limits	-26,51%	-45,08%	20,56%
Sub-option 3.1 – Stage II + Flexibility scheme	-23,96%	-28,20%	17,99%
Sub-option 3.2 – Stage II + Additional transitional period	-19,88%	-33,81%	15,42%
Sub-option 3.3 – Stage II + Additional transitional period + Specific time for SI engine SMEs	-19,78%	-33,81%	15,36%

Net economic benefit (savings/costs analysis)

	Net benefit (M€)
Option 2 – Stage II of the limits	1,9 M€ - 34,1 M€
Sub-option 3.1 – Stage II + Flexibility scheme	4,8 M€ - 34,6 M€
Sub-option 3.2 – Stage II + Additional transitional period	5,7 M€ - 34,9 M€
Sub-option 3.3 – Stage II + Additional transitional period + Specific derogation for SME SI engine manufacturers	5,7 M€ - 34,8 M€

Comparison of the social impact measured in units / year

	Total job losses for CI engines	Total job losses for SI engines
Option 2 – Stage II of the limits	less than 100	less than 100
Sub-option 3.1 – Stage II + Flexibility scheme	less than 10	less than 100
Sub-option 3.2 – Stage II + Additional transitional period	job losses unlikely	less than 100
Sub-option 3.3 – Stage II + Additional transitional period + Specific derogation for SME SI engine manufacturers	job losses unlikely	job losses unlikely

Basically all options meet the general objectives as they firstly lead to the decrease of air pollutants in the environment and secondly they provide the common legislative framework for the engine manufacturers operating within the EU market and thirdly ensure the alignment of engine emission requirements with the US. However, Option 2 does not sufficiently meet the specific objective to protect small vulnerable enterprises from worsening their position on the market. Sub-option 3.3 takes account of this.

Sub-option 3.3 is the most efficient compromise for SMEs in terms of environmental effects combined with economical and social losses. Therefore it became the preferred option.

B. Impact of the noise emissions limits for engines

Option 1: Impact of no policy change

Keeping the current noise emission limits will guarantee the maintaining of the internal market due to harmonisation of noise limits, but at the same time also save compliance costs for companies which will not have to invest in new technologies to achieve the required emission limits. It allows achieving greater environmental benefits through tailor-made, national, measures, specifically designed for the areas in which craft operates in each country.

Member States would enjoy a leeway to design specific measures which would allow them to effectively restrict noise, since noise emitted by recreational craft is not the sole result of engines' noise.

Option 2: Impact of stricter noise emissions limits

Noise from the boat does not entirely result from the boat's noise emissions but rather, they are a result of a combination of factors (use/speed of boat, noise of the engine, noise of the hull, subjective criteria linked to the area, the person listening etc.). The weight of these factors varies for each particular boat. Since the Directive can only act on the noise emission from the boats measured in sterile conditions, it can modify a limited source of the total noise felt by the user/bystanders. Restricting of just one factor (such as noise emissions of engines) would not bring expected decrease of overall noise while it would impose high compliance costs on the manufacturers.

Overall sound reductions that can be obtained from reducing noise from engines

Type of engine	Sound reduction of the engine (in dB)	Total craft's sound reduction obtained (in dB)
Outboard $P_N > 40$ kW	-6 / -8	-3
Outboard $10 < P_N < 40$ kW	-4 / -5	-3
Outboard $P_N < 10$ kW	-4 / -5	-3
PWC $P_N > 40$ kW	-4 -3	-3 -2 / -1

C. Impact of the measures aligning the Recreational Craft Directive with the New Legislative Framework (NLF)

The impact should be mostly positive, since the horizontal provisions are clarifying certain issues which are subject to uncertainty for the moment. Legal certainty will be for the benefit of all parties: economic operators, national and the EU administration as well as consumers. Certain new obligations set for economic operators, can have an economic impact in terms of new costs for the economic operators.

6. MONITORING AND EVALUATION

The main tool is market surveillance by the competent authorities of Member States. The Commission will detect problems of regarding the correct application of the Recreational Craft Directive through:

- The regular reports that Member States have to send to the Commission,
- The ADCO group meetings,
- The information exchange systems provided by Art. 23 of Regulation 765/2008/EC framework,
- The group of notified bodies that coordinates the common application of the conformity assessment rules.