

EU Consultation on the revision of Directive 97/68/EC on emissions from non-road mobile machinery engines



### About us

The Federal Chamber of Labour is by law representing the interests of about 3.2 million employees and consumers in Austria. It acts for the interests of its members in fields of social-, educational-, economical-, and consumer issues both on the national and on the EU-level in Brussels. Furthermore the Austrian Federal Chamber of Labour is a part of the Austrian social partnership.

The AK EUROPA office in Brussels was established in 1991 to bring forward the interests of all its members directly vis-à-vis the European Institutions.

### Organisation and Tasks of the Austrian Federal Chamber of Labour

The Austrian Federal Chamber of Labour is the umbrella organisation of the nine regional Chambers of Labour in Austria, which have together the statutory mandate to represent the interests of their members.

The Chambers of Labour provide their members a broad range of services, including for instance advice on matters of labour law, consumer rights, social insurance and educational matters.

Rudolf Kaske President More than three quarters of the 2 million member-consultations carried out each year concern labour-, social insurance- and insolvency law. Furthermore the Austrian Federal Chamber of Labour makes use of its vested right to state its opinion in the legislation process of the European Union and in Austria in order to shape the interests of the employees and consumers towards the legislator.

All Austrian employees are subject to compulsory membership. The member fee is determined by law and is amounting to 0.5% of the members' gross wages or salaries (up to the social security payroll tax cap maximum). 560.000 - amongst others unemployed, persons on maternity (paternity) leave, communityand military service - of the 3.2 million members are exempt from subscription payment, but are entitled to all services provided by the Austrian Federal Chambers of Labour.

Werner Muhm Director



## The AK position in detail

The Directive 97/68/EC (hereinafter the Directive) regulates the type approval process and the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery. It applies to compression ignition engines (diesel engines) and positive ignition engines (petrol engines), which are installed in mobile machinery, including locomotives and inland waterway vessels. The Federal Chamber of Labour is taking part in this consultation to point out the important aspects of this Directive with regard to occupational health and safety and environmental protection.

### Occupational health and safety

Due to their sophisticated technology and torque in the lower speed range, it is not possible to imagine a modern working environment without diesel engines. Hence, they are used in many off-road vehicles and machinery. Thus, the determination of emission limits for non-road mobile machinery engines based on the Directive, is therefore a decisive factor in respect of the work-place pollutant exposure.

It has to be pointed out that there has been serious scientific evidence since the 1980ies that diesel engine emissions (DEEs) cause cancer. The Technical Rules for Hazardous Substances 906 list activities or processes, which release DEEs, in the "List of cancer causing activities". Hence, DEE is subject to a general minimization requirement, whereby the state of technology has to be taken into account. In June 2012, the International Agency for Research on

Cancer (IARC), a division of the WHO, clearly classified diesel exhaust fumes as "carcinogenic to humans". This decision was based on studies carried out on workers (railway workers, miners), who are exposed to diesel engine exhaust fumes, which are subject to the regulations of the Directive.

The BAK vehemently criticises that the about 300 pages long "Impact Assessment" on the revision of the Directive completely fails to mention occupational health and safety issues and their impact on the health of workers. Due to the classification of IARC, one has to assume that a worker's exposure to pollutants in the environment of an engine within the scope of this Directive is at least comparable to a passive smoker. From our point of view, the European Commission would be well advised to consider the healthcare costs for society in their entirety and to increase the involvement of the European Agency for Safety and Health at Work with regard to the revision of the Directive.

Hence, based on the IARC decision, vehicles and machinery, which fall within the scope of the Directive, should in general be equipped with state of the art exhaust technology, i.e. exhaust treatment systems with Diesel Particulate Filter (DPF) according to VERT Standard<sup>1</sup>). This is normally the case

1 VERT= Curtailing Emissions from Diesel Engines in Tunnel Construction. A standard, which has been developed from a project to examine technical possibilities to reduce particulate matter emissions in existing diesel engines, (1994 – 1999) as a joint project of the Swiss National Accident Insurance (Suva), the Austrian Accident



in particular critical operational areas (e.g. underground mining and factory halls). In practice, however, the subsequent installation of these exhaust treatment systems is not without problems, as producers fail to consider this with regard to the overall design of their machinery. Apart from that, owners of refitted machinery run the risk that manufacturers or dealers claim that their warranty is void resp. they might lose the CE marking. The provisions of the Directive (compare Recital 10 in connection with Art 8(1) in relation to Art 13) are too vague. The BAK expects the revision of the Directive to clarify the issue.

### New emission limits - Stage V

Based on the explanations on occupational health and safety at work, the BAK supports setting a Stage V emission limit for non-road mobile machinery, which analogue to HGVs adhere to a particle number and mass criterion regarding the emission of particulates as early as possible. This should apply to different power categories without differentiation. From the point of view of occupational health and safety and environmental protection, state of the art technology must be applied without exception.

The objections by industry representatives in respect of "cost effectiveness" should be met with the argument that motorcar and HGV owners had to bear these costs for a long time already. The BAK also points out that the Commissi-

Insurance Institution (AUVA), the Civil Engineering Employers Liability Insurance Association (TBG), the Swiss Agency for the Environment, Forests and Landscape (BUWAL) and the German Federal Environment Agency (UBA) as well as a large industry advisory group.

on has been planning to set new emission limits since 2007 and that manufacturers should not be awarded with additional compliance periods.

### Air Quality Directive (2008/50/EC) and off-road vehicles

Concerning the adherence to the Air Quality Directive in the EU Member States, off roaders were identified as a significant source of air pollution and for exceeding particulates limits (PM 10). Hence, in Directive 2011/88/EC the Council and the European Parliament have decided that tackling non-road emissions at local level is a decisive factor and urges the Commission as part of the revision of the Directive to "take a comprehensive approach to promoting emission-reducing provisions and retrofitting of after-treatment systems on the existing fleet of non-road mobile machinery"2.

#### 2 RL 2011/88/EU Recital 8

"Improving air quality is a major Union goal pursued through Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe. Tackling emissions at source is essential for meeting that goal, including reducing emissions from the non-road mobile machinery sector."

#### RL 2011/88/EU Recital 2

(2) The revision of Directive 97/68/EC is currently being prepared by the Commission in line with the requirements of Article 2 of Directive 2004/26/EC of the European Parliament and of the Council of 21 April 2004 amending Directive 97/68/EC. In order to ensure that the revised Directive is in line with Union standards for good air quality, and in the light of experience, scientific findings and available technologies, the Commission should, in the upcoming revision of Directive 97/68/EC and subject to impact assessment, consider,



This request by the European legislator is completely ignored by the Commission. Consultation papers and impact studies do not address the necessity to put forward regulations for already existing mobile machinery with extremely poor emission values and an operating time of 15 years (40 years for locomotives). It is vehemently pointed out that not newly registered engines and

- establishing a new emission stage – Stage V – that should be based, subject to technical feasibility, on the requirements of Euro VI standards for heavy-duty vehicles;

- introducing new requirements for the reduction of particulate matter, namely a particulate number limit that applies for all compression ignition engine categories, where technically feasible, so as to ensure an effective reduction of ultra-fine particles;
- taking a comprehensive approach to promoting emission-reducing provisions and retrofitting of after-treatment systems on the existing fleet of non-road mobile machinery on the basis of the currently ongoing discussions under the auspices of the United Nations Economic Commission for Europe regarding harmonised requirements for retrofit emission control devices; this approach should support Member States' efforts to improve air quality and to promote the protection of workers;
- establishing a method providing for the periodic testing of non-road mobile machinery and vehicles, in particular to establish whether their emissions performance complies with the values given at registration;
- the possibility of authorising, under certain conditions, replacement engines that do not comply with Stage III A requirements for railcars and locomotives;
- the possibility of harmonising the specific emission standards for rail with relevant standards at international level so as to ensure the availability of affordable engines that comply with the emission limits set "

vehicles, but old and already existing ones, represent one of the fundamental problems in respect of adhering to the Air Quality Directive in the Member States. The Member States are required by law to adhere to the provisions of the Air Quality Directive for PM10 since 2005, whilst DG Enterprise and Industry indicate a new limit ("Stage V") in their consultation document, which realistically will not have an impact on air pollution control before 2020.

The BAK notes that in Switzerland and other countries, construction machinery, heavy goods vehicles and diesel locomotives have already been or are just about to be refitted with particle filters. Hence, technical feasibility has long been proven. Our study "Feinstaubproblem Baumaschine: Emissionen und Kosten einer Partikelfilternachrüstung in Österreich" [Particle problem construction machinery: emissions and costs of refitting particle filters in Austria] is able to prove conclusively that refitting, in particular in case of mobile machinery, represents the best cost-benefit relationship.

Hence, the BAK requests that a new Directive contains secured regulations and processes, which ensure that public procurement can give due consideration to refitted off-road machinery and that authorities in areas with polluted air, are able to impose the obligation to refit outdated equipment.

# Exemption and special regulations resp. transitional provisions for manufacturers in the transition to new emission regulations

With regard to the transition to new emission regulations, the Directive currently provides rules for manufacturers,

<sup>3</sup> Feinstaubproblem Baumaschine: Emissionen und Kosten einer Partikelfilternachrüstung in Österreich. Wien - Arbeiterkammer, 2009. ISBN: 978-3-7062-0108-7.



which are difficult to administer and harmful to the environment. The aim of the Commission to allow manufacturers a "smooth transition" to new emission limits is, from the point of view of the BAK, an example for poor EU governance.

A "flexibility mechanism" allows manufacturers to use in the period between two emission stages, a limited number of engines that do not comply with the emission limits applicable during that period, but which are approved in accordance with the requirements of the stage immediately preceding the applicable one. Provided this regulation can be controlled seriously, this means a significant additional administrative burden. Based on our experiences, this regulation results in deliberate stockpiling to enable profits based on less adequate exhaust technology. According to this, the provisions in the Directive on the sale of stock levels (Art 9 Abs. 4a) and discontinued series should be cancelled.

The BAK is in favour of deliberately dealing with transitional regulations in a restrictive manner. We support ex-ante regulations as is the case with heavy goods vehicles, where manufacturers prior to the new emission standard coming into force, due to notification to the authorities, are granted a smaller quota. In any case, in presenting a new Directive proposal, the Commission should be able to depict in a transparent manner, how it ensured both adherence and control of this "flexibility mechanism" in the past.

### Demarcation problems between "off-road" and "on-road"

Economic cost benefits due to non-demanding emission limits in the off-road

sector entice manufacturers to produce off-road vehicles to be used on the road as a rival product to HGVs. Hence, for quite some time agricultural tractors with powerful engines are infiltrating market niches, which had previously been reserved for heavy goods vehicles. The BAK would like to point out that HGVs - in contrast to tractors - are fitted with a digital control device to monitor working periods; they are also subject to training rules for drivers and to stricter road safety regulations for transporting goods. We urge the Commission to take appropriate measures and to put an end to this competitive distortion.

## Extending the scope of the Directive to other engine categories

The BAK is generally in favour of extending the scope of the Directive for compression ignition engines to engine categories below 19 kW and self-ignition engines above 560 kW as well as to stationary engines. We also support an extension for spark ignition engines above 18 kW (snowmobile engines, quads and side-by-side vehicles). References to export problems with regard to important third markets (e.g. USA) due to a lack of emission standards imply serious legislation failures by the Commission and the EU legislator.

#### Use of alternative fuels

The BAK welcomes in principle the use of engines, which are operated with alternative fuels, provided this leads to improved energy efficiency. However, a new initiative by the Commission to promote first generation biogenic fuels is strictly rejected because they cause an increase in food prices and rely on non-sustainable farming methods.



The BAK points out that in case of alternative fuels, the impact on occupational health and safety has to be given due consideration. We refer in particular to the impact of ethanol in case of spark ignition engines in chainsaws. The use of alcohols in specific tests concerning two-stroke engines in work equipment (e.g. chainsaws) has resulted in forest workers feeling nauseous as well as to increased aldehyde emissions. In Annex VI of Regulation 2008/1272/ EC on the classification, labelling and packaging of substances and mixtures, formaldehyde has been classified legally binding as "Suspected human carcinogens" in Category 2.

However, the use of benzene free alkylate fuel in two-stroke engines should be promoted because it will prevent the emission of carcinogenic polyaromatic hydrocarbons.



Should you have any further questions please do not hesitate to contact

### Franz Greil

T: + 43 (0) 1 501 65 2262 franz.greil@akwien.at

#### and

### Frank Ey

(in our Brussels Office) T +32 (0) 2 230 62 54 frank.ey@akeuropa.eu

### Bundesarbeitskammer Österreich

Prinz-Eugen-Strasse, 20-22 A-1040 Vienna, Austria T +43 (0) 1 501 65-0 F +43 (0) 1 501 65-0

### **AK EUROPA**

Permanent Representation of Austria to the EU Avenue de Cortenbergh, 30 B-1040 Brussels, Belgium T +32 (0) 2 230 62 54 F +32 (0) 2 230 29 73