



February 2015
AK Position Paper

Proposal for a Regulation regarding emission values and type approval for internal combustion engines for non-road mobile machinery and equipment – COM(2014) 581 (NRMM-Regulation)

About us

The Austrian Federal Chamber of Labour is by law representing the interests of about 3.4 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.

Rudi 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, community and military service - of the 3.4 million members are exempt from subscription payment, but are entitled to all services provided by the Austrian Federal Chambers of Labour.

Werner Muhm
Director

Executive Summary

The proposal is for a Regulation that regulates emission values, the type approval and the market surveillance of internal combustion engines in non-road machinery and equipment. The key point of the proposal is the specification of a new emission level ("Stage V"), which, depending on the engine category, will come into force between 2018 and 2021 for type approval and placing on the internal market. This Regulation shall affect working equipment, railway vehicles, inland waterway vessels, auxiliary engines, generators, construction machinery and also snowmobiles, off-road and side-by-side vehicles (consequently, the NRMM sector). Agricultural and forestry vehicles are also indirectly affected, as Reg 167/2013 has to take emission values into account from this Regulation. According to the Commission, the NRMM sector is responsible for around 15% of all nitrogen oxide emissions and 5% of all particulate matter emissions in the EU.

In general, the Austrian Federal Chamber of Labour (AK) welcomes the Commission's long overdue proposal for a Regulation. The central issue, namely the need for and stipulation of a new emission level "stage V" for the NRMM sector to protect human health and the environment, has our full support. We also support the approaches to market surveillance in the Member States.

However, we see a definite need for improvement in the proposal relating to safety and health at work, state of the technology and particle number count, avoidance of harmful secondary emissions and the legal certainty of specific terms used.

The AK position in detail

In the proposal, the Austrian Federal Chamber of Labour (AK) does not see any reference to safety and health at work, even though the urgent need for this was referred to in the preceding consultation procedure.

Operators who have to work in the immediate vicinity of diesel gas emissions, such as construction workers, locomotive drivers, professional vehicle drivers etc., have a significantly higher risk of getting lung cancer than the normal population.¹ Pursuant to the Technical Rules Hazardous Substances (TRGS) 554 therefore, there is a duty to minimise these emissions, which can only be achieved by using state-of-the-art emission devices. State-of-the-art emission values for type-approval and requirements on emission durability periods, the checking of emission devices onsite for machinery and equipment in the NRMM sector and a functioning system of market surveillance are therefore of essential importance for the quality of and compliance with regulations regarding safety and health at work, as workers are often forced to work in the exhaust plume of this machinery. This horizontal aspect must be duly considered in this Regulation. Especially with regard to the envisaged authorisation provided for in Art. 55 to elaborate and to adopt delegated legal acts, the expert bodies

of the Commission must take into account the views of representatives for safety and health at work and also other relevant stakeholders in society (environment NRO, environmental research institutions etc.) outside industry.

Machinery and vehicles within the scope of this Directive are subject to special requirements with respect to occupational safety and health as their use can involve particular risks for workers in particular. The use of internal combustion engines in underground construction, for example, is only permitted if an electric drive system is not possible for technical reasons. The general legal understanding of the Directorate-General for Industry and the explanations in this proposal, especially Art. 6 (4), allow the erroneous conclusion to be drawn that no additional requirements are permissible if an engine is properly type-approved and placed on the market in accordance with this Regulation. Not least for reasons of legal certainty, it should be clarified, as in the preceding Directive (cf. in this respect recital 17 in connection with Art. 13 in Directive 97/68/EC), that the right of the Member States to be able to stipulate measures necessary in accordance with the EU Treaty regarding safety and health at work when using machinery and equipment covered by the Regulation remains unaffected.

¹ Brüske-Hohlfeld et al (2000): Occupational Lung Cancer Risk for Men in Germany; Results from a Pooled Case-Control Study in: American Journal of Epidemiology, Vol 151, Nr 4; Brüske-Hohlfeld (1999): Occupational Cancer in Germany in: Environmental Health Perspectives. Vol 107 Supplement

The AK welcomes in principle the introduction of a particle count criterion. This corresponds to the classification for diesel exhaust particulates (hazardous substance class 1 A, carcinogenic) by the International Agency on Research of Cancer (IARC) at the WHO and the evidence from numerous scientific studies regarding the danger to human health (cardiovascular system, inflammation of the respiratory system organs, penetration into the brain, placenta and bloodstream) by means of ultra-fine particles (PM 0.1) from diesel exhaust particulates and internal engine (metal) debris. Apart from methane, diesel exhaust particulates are also to be classified as extremely damaging to the climate. These hazards can be avoided by using diesel particulate filter systems (DPF). The Regulation for the typeapproval of lorries (Reg 595/2009) and passenger cars (Reg 715/2007) therefore also contained a particle count criterion in accordance with the state of technology.

Our opinion is that diesel engines within the scope of this Regulation must also be subject to a particle count criterion in accordance with the state of technology, as the Commission was required in Directive 2011/88/EU (cf. recital 2). In the current proposal, the Commission has neither provided for a particle count criterion for all diesel engine categories (NRE under 19 kW, NRG above 560 kW, IWP under 300 kW, IWA above 560 kW, RLL), nor has it stipulated the state of technology for other diesel engines with a PN of 10^{12} , which has been in existence for years with lorries and passenger cars (6×10^{11}). The AK points out that those technically proven DPF emission systems already in use today can comply with a much more stringent particle count criterion than 6×10^{11} and 15 engine types with a PN of 10^{10} have already been homologised in Switzerland. As the current proposal lays down, from an emissions law perspective, a frame-

work for industry of at least a decade, the status of technology should be checked very carefully and a level that is at least identical to lorries should be laid down.

The lack of a particle count criterion for certain engine categories or between the power ranges within the engine categories is to be rejected. This can open the way to avoidance strategies in certain engine categories (such as NRG above 560 kW). With respect to emissions production and the long period of use of certain engine categories (up to 60 years in locomotives!), an obligation to use a particle filter should be used precisely here. If this leads to adaptation problems in some branches of industry (including inland waterways and train companies), this must be accompanied by subsidies for reasons of political economics. From a workers' perspective, diesel engines under 19 kW should also be included as in California² there has been a requirement for a long time for a particle filter for machinery larger than 9 kW (such as generators, trailer refrigeration units/TRUs and small auxiliary engines/APUs), which can also be complied with by companies that offers the same products both in the Internal market and in California, although in Europe they exhibit poorer emission values.

² [California Code of Regulations, Title 13, Division 3, Chapter 9, Article 8, Section 2477. Airborne Toxic Control Measure for In-Use Diesel-Fuelled Transport Refrigeration Units \(TRU\) and TRU Generator Sets, and Facilities Where TRUs Operate and § 2485. Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling](#)

The emission values specified in Annex II have attracted criticism on the grounds that with a value for NO_x alone, the health objectives cannot be achieved or are easy to circumvent by manufacturers. With reference to the enormous regulatory failure of the EU Commission with the recent Euro-5 and Euro-6 emission standards for diesel passenger cars (increase in NO_2 in the crude gas NO_x , modern passenger cars emit more than old ones), which renders virtually impossible compliance for regional authorities with NO_2 values for ambient air concentration laid down in Directive 2008/50/EC, it is imperative that a emission value for NO_2 is laid down by legislators in Article 17 and Annex II for all engine categories.

With regard to carbon monoxide (CO), the limits values in the NRS_h and NRS categories (610 to 805 g/kW!) must be checked in particular. In light of the fact that workers (such as those involved with forestry and plant cutting) are exposed in the immediate exhaust plume of hand-held engines, the state of technology should be determined again in earnest.

With respect to the limit for hydrocarbons (HC), it is pointed out that HC is a collective term for volatile organic substances that contain carcinogenic substances (polyaromatic hydrocarbons) but also harmless substances from a health perspective (such as alkanes). With respect to a greater degree of accuracy in the emission limits, especially with hand-held engines (NRS_h), improved emission values should be worked out therefore in a procedure in accordance with Art 55 for reasons of safety and health at work.

In addition to technical emission regulations, reference is also made to the significance of fuels and lubricants. The

use of benzene-free petrol, also called "alkylate-based petrol" or "environmental petrol", should be taken into account in the Regulation as carcinogenic benzene can be completely avoided and nitrogen oxides can be reduced in (hand-held) engines. With reference to scientific studies, lubricants for engines should also be examined in detail with respect to the particles they contain (such as zinc, phosphate and calcium).

The removal of agricultural and forestry vehicles from the scope of this regulation is vehemently opposed by the AK, as even Directive 2013/167 took the standardisation of agricultural and forestry vehicles fully into account from the perspective of emission law and consequently the proposal at hand. The AK refers especially to tractors already on the market that are used outside agriculture and forestry for commercial transportation (such as construction site and earth transportation, road maintenance in winter, plant cutting, transportation on own account in factories etc.). As tractors are already supplied today with a model-specific speed in excess of 60 km/h and are not affected by weekend bans, weight restrictions, digital tachographs and training regulations for drivers, these are on the point of eliminating the lorry with Euro-6 emission technology from certain transport segments. This Regulation should at least guarantee, for reasons of fairness and competition equality, that tractors with type-approval for commercial activities are equal to lorries as regards emission values. Recital 4 and Art 2 (2b) must be amended to this effect.

In a similar way to safety and health at work, the obligations of the Member States (Art 5) must be clarified so that the provisions for type-approval in no way prejudice the provisions for the use of NRMM machines and vehicles that

are necessary to comply with other EU legislation (such as Directive 2008/50/EC), if these measures are proportional and not discriminatory (such as a ban on the use of especially old NRMM machines and vehicles in areas heavily affected by air pollution). It should also be possible for Member States to favour machines with the best emission standards (taxes, public contract awards, subsidies) and to have already approved old machines retrofitted with particle filter emission systems in accordance with the regulations of the UNECE Agreement 132 of June 2014³. This requires additional legal clarification in this proposal for a Regulation.

From the perspective of environment and safety and health at work, the periodic monitoring of emission requirements for NRMM engines and their onsite monitoring are accorded great importance. However, their implementation in the recitals 17 and 18 is less specific and binding. In this respect, the Regulation should be designed to be more binding. Following already ongoing efforts in the road sector, realistic test cycles should also be specified for the NRMM sector.

³ Proposal for a DECISION OF THE COUNCIL regarding the position to be taken by the Union on the Administration Committee of the Economic Commission of the United Nations for Europe with respect to the draft of a Directive regarding standardised conditions for the approval of emission-reducing equipment for retrofitting on heavy trucks, agricultural and forestry tractors and mobile non-road machinery and equipment equipped with self-combustion engines (COM(2013) 693 final)

The provisions regarding the obligations of the approval authorities (Article 6) and market surveillance in the Member States (Art 7) with a central administration platform at EU level (Art 42) are welcomed by the AK. However, we regret the lack of testing requirements for the authorities along the lines of those used in the USA. In view of the fact that staff resources in public administration are scarce in the EU-Member States, greater coordination should be undertaken in the context of the Internal Market. The labelling of NRMM engines by emission level incorporated into this Regulation would also alleviate the onsite checks carried out by regional authorities.

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

Franz Greil

T + 43 (0) 1 501 65 2422
franz.greil@akwien.at

and

Gudrun Kainz

(in our Brussels Office)
T +32 (0) 2 230 62 54
gudrun.kainz@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