

Statements of EUnited Municipal Equipment Association on the revision of the Outdoor Noise Directive 2000/14/EC in general and on the supporting study for an evaluation and impact assessment of Directive 2000/14/EC on noise emission by outdoor equipment

1. Equipment No. 46 - Clear designation and definition necessary

The term under No. 46 should be changed from "Power Sweeper" to "Road Sweeper". This has already been suggested in the TNO study and in the Odelia Report. In addition, the text from EN15429-1 in 2.1 should be used as the definition of "Road Sweeper":

"Machine primarily for sweeping material from airports, highways or other traffic areas (e. g. parking areas, market places pedestrian zones, pavements, bicycle lanes, parking lots). These machines are fixed or dismountable attached on a carrier vehicle, on a specially designed chassis, on a pedestrian controlled vehicle or on a towed vehicle. Sweeper can move material to a hopper or other type of container attached to the machine by mechanical or pneumatic means, or by combination of each."

In our opinion, this change of term and the supplementary definition are absolutely necessary in order to distinguish the various types of sweeping machine and to separate them from other cleaning machines, thus ensuring that the requirements of the OND are only imposed on the intended applications and to avoid further interpretations and misunderstandings.

See also the statement of EUnited Cleaning, dated on 15 May 2019.



Examples of road sweepers as defined in EN 15429

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2. Noise limit - calculation based on total installed power regardless of power source type

EUnited ME agrees with the calculation of the noise emission limit value as a function of engine power with the proposed formula " $89+11 \cdot \lg P$ ". The noise emissions of these machines are mainly caused by the components that are active when sweeping, such as the travel drive (hydrostatic or mechanical), the hydraulic pump, the suction system, the blower and the power take-off to the sweeper body with the sweeper gear. The noise level usually depends on the power with which these aggregates are driven.

The basis for calculating the noise limit must always be the total power P provided to operate the sweeper, i.e. the power available to move the vehicle and the power used to drive the sweeping system. In addition to single-engine sweepers, there are also multi-engine sweepers, for example truck mounted sweepers, which have an engine to drive the vehicle and an additional auxiliary engine to drive the sweeping gear. In both cases, the total installed power must be used to calculate the noise limit, as it is also necessary for the road sweeper to operate.

It is also irrelevant with which source this power is made available, whether by an internal combustion engine or an electric motor for example, since the power source itself contributes only slightly to the noise development compared to the above-mentioned aggregates.

**Auxiliary engine (24 kW) -
drive of the sweeping system**



**Traction engine (107 kW) -
movement of the vehicle**

3. Noise limits – no further reduction by legal requirements but regulated by the market

Manufacturers provide noise packages on customer's request. These noise packages are not available and/or applicable for all sweeper types and they are not needed for all sweeping applications.

A sweeper manufacturer sells of the same sweeper type one machine that cleans the pedestrian zone in the city centre and another machine for use on a motorway construction site. The sweeper, which should sweep as quietly as possible in the

pedestrian zone, is equipped with an additional noise reduction package at the customer's request. The sweeper, which is intended to achieve a clean and safe road surface on the construction site as quickly as possible, cannot be equipped with this noise reduction package, as this would reduce the efficiency of the machine on the one hand and would not have any effect in the noisy environment on the construction site on the other.

For this reason, EUnited Municipal Equipment asks not to require further noise reduction for road sweepers by law, as it is already regulated by the market to suit the respective application.

4. New noise test code for refuse collection vehicles (No. 46) necessary

The measurement method described in EN 1501-4 should be revised as it considers noise emissions as they never occur under real operating conditions of an RCV. The most problematic issue in the measurement of noise emissions from refuse collection vehicles (RCV) according to EN 1501-4 and 2000/14/EC is the use of plastic tubes to simulate the waste filled into the hopper. The noise caused by the collision of the tubes with each other and the tubes with the hopper is unrealistically loud and is overestimated in the overall evaluation. As a result, innovations that contribute to noise reduction at the RCV in real operation are not taken into account at all or not enough during measurement.

Some customers have already set their own requirements for noise emission limits, which are measured without emptying plastic pipes, as this method does not correspond to the typical waste conditions.

EUnited Municipal Equipment, together with the leading European RCV manufacturers, has already started to draft a new proposal to revise EN 1501-4, with the intention of starting the active revision of this standard at CEN as soon as possible. This standard proposal takes into account not only the emptying phase of the container when the RCV is at a standstill, but also the approaching and leaving of the RCV into the loading zone. This shows the influence of the drive motor and transmission on noise emissions.

EUnited ME requests that RCVs remain in Article 13 until the revision of EN 1501-4 is completed. Later, on the basis of the results from the measurements with the future noise measurement procedure, limit values for RCV can be derived and RCV can be transferred from Article 13 to Article 12.

However, it makes no sense to define limit values now, which cannot be represented with a future measuring method at all.

47 . Refuse collection vehicles

Nomeval	First stage 107, Second stage 104
WG7	Art.13 due to test code
EUnited	Art.13 due to test code
ODELIA	105
Decision code	NETF4

Extract from ODELIA Final Report, 19 January 2016

5. Self-propelled snow removing machines according to EN 15906 should be excluded from the scope of the OND

These machines are designed to remove large amounts of snow from pass roads in a short period of time and to quickly restore access to enclosed settlements after avalanches. These machines must function reliably under the most adverse conditions. Noise reduction measures on the machine in operation tend to be counterproductive and also increase maintenance efforts. In general, their area of application is far away from inhabited areas.



Snow-cutter-blower according to EN 15906

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