No. 621

Government Decree
on noise emission levels from equipment for outdoor use

Issued in Helsinki, February 5, 2001

In accordance with the Government Decision made on the submission of the Ministry of the Environment, under sections 13, 22 and 24 of the Environmental Protection Act (86/2000) of February 4, 2000, of which section 22 as it stands in Act 586/2001, the following is decreed:

Section 1

Scope of application

This Decree applies to equipment intended to be used outdoors, as referred to in sections 3 and 4, which has been placed on the market within the European Economic Area or which is intended to be put into service there as an entire unit suitable for the intended use.

This Decree does not apply to:

1) non-powered attachments or other appliances that has been separately placed on the market or put into service, except for hand-held concrete-breakers or picks or for hydraulic hammers;

2) any equipment primarily intended for the transport of goods or persons by road, rail or air or on waterways;
3) equipment specially designed and constructed for military or police purposes, for frontier border guard purposes or for emergency services.

Section 2

Definitions

In this Decree:

1) equipment for outdoor use, herein equipment, means all machinery defined in section 2 of the Government Decision on the safety of machines (1314/1992) which is either self-propelled or can be moved and which, irrespective of the driving element(s), is of a type intended to be used in the open air and which contributes to environmental noise exposure, and non-powered equipment for industrial activity or environmental applications which is of a type intended to be used in the open air and which contributes to environmental noise exposure;

2) outdoor use means use of the equipment in an environment where the propagation of sound is not at all or not significantly affected, such as under tents, roofs for shelter against rain or temporary protective coverings over buildings, as well as use of the equipment in the open air;

3) conformity assessment procedures means procedures prescribed in Annexes 3-6 of this Decree which are based on Council Decision 93/465/EEC relating to the modules intended for use at different stages of the procedures for assessing compliance with the provisions of directives on technical harmonization, and to affixation of CE marking;

4) marking means visibly, legibly and indelibly affixing to the equipment the CE marking defined in
the Act on CE markings (1376/1994), accompanied by indication of the guaranteed sound power level;

5) the sound power level $L_{WA}$ means the A-weighted sound power in dB in relation to 1 picowatt as defined in EN ISO 3744:1995 and EN ISO 3746:1995;

6) the measured sound power level means a sound power level determined from measurements as laid down in Annex III of the Directive 2000/14/EC of the European Parliament and the Council on approximation of the laws of Member States relating to noise emission into the environment from equipment for outdoor use, hereinafter referred to as the Equipment Noise Emissions Directive, with the measured levels determined either from a single machine representative of the type of equipment concerned or as an average of several machines;

7) the guaranteed sound power level means a sound power level determined in accordance with the requirements laid down in Annex III of the Equipment Noise Emissions Directive, which takes account of uncertainties due to production variation and measurement procedures, and which the manufacturer, or his authorized representative established in the Community, affirms, on the basis of technical instruments used and stated in the technical documentation, are not exceeded.

The definitions for equipment referred to in this Decree are laid down in Annex I of the Equipment Noise Emissions Directive.

Section 3

Noise limits
The guaranteed sound power level of the equipment listed below and intended for placing on the market or putting into service may not exceed the permissible sound power level as laid down in the following table:

<table>
<thead>
<tr>
<th>Type of equipment</th>
<th>Net installed power $P$ (in kW)</th>
<th>Permissible sound power level in dB/1 pW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electric power</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$P_{el}$ * in kW</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stage I (as of January 3, 2002)</strong></td>
<td><strong>Stage II (as of January 3, 2006)</strong></td>
<td></td>
</tr>
<tr>
<td>Mass of appliance $m$ in kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutting width $L$ in cm</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Compaction machines</strong> (&lt;vibrating rollers, vibratory plates, vibratory rammers&gt;)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$P \leq 8$</td>
<td>108</td>
<td>105</td>
</tr>
<tr>
<td>$8 &lt; P \leq 70$</td>
<td>109</td>
<td>106</td>
</tr>
<tr>
<td>$P &gt; 70$</td>
<td>$89 + 11 \log P$</td>
<td>$86 + 11 \log P$</td>
</tr>
<tr>
<td><strong>Tracked dozers (&lt;500 kW), tracked loaders (&lt;500 kW), tracked excavator-loaders (&lt;500 kW)&gt;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$P \leq 55$</td>
<td>106</td>
<td>103</td>
</tr>
<tr>
<td>$P &gt; 55$</td>
<td>$87 + 11 \log P$</td>
<td>$84 + 11 \log P$</td>
</tr>
<tr>
<td>Equipment Type</td>
<td>Power Range</td>
<td>Equation</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td>Wheeled dozers (&lt;500 kW), wheeled loaders (&lt;500 kW), wheeled excavator-loaders (&lt;500 kW), dumpers (&lt;500 kW), graders (&lt;500 kW), loader-type landfill compactors (&lt;500 kW), combustion-engine-driven counterbalanced lift trucks**, mobile cranes, compaction machines (non-vibrating rollers), paver-finishers (except for those with a high-compaction screed), hydraulic power packs</td>
<td>( P \leq 55 )</td>
<td>( 104 )</td>
</tr>
<tr>
<td></td>
<td>( P &gt; 55 )</td>
<td>( 85 + 11 \log P )</td>
</tr>
<tr>
<td>Excavators (&lt;500 kW), builders’ hoists for the transport of goods, construction winches, motor hoes (&lt;3 kW)</td>
<td>( P \leq 15 )</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>( P &gt; 15 )</td>
<td>( 83 + 11 \log P )</td>
</tr>
<tr>
<td>Hand-held concrete-breakers and picks</td>
<td>( m \leq 15 )</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>( 15 &lt; m &lt; 30 )</td>
<td>( 94 + 11 \log m )</td>
</tr>
<tr>
<td></td>
<td>( m \geq 30 )</td>
<td>( 96 + 11 \log m )</td>
</tr>
<tr>
<td>Tower cranes</td>
<td>( P_{e1} \leq 2 )</td>
<td>98 + 1 \log ( P_{e1} )</td>
</tr>
<tr>
<td>Welding and power generators (&lt;400 kW)</td>
<td>( 2 &lt; P_{e1} \leq 10 )</td>
<td>( 98 + 1 \log P_{e1} )</td>
</tr>
<tr>
<td></td>
<td>( P_{e1} &gt; 10 )</td>
<td>( 97 + 1 \log P_{e1} )</td>
</tr>
<tr>
<td>Compressors (&lt;350 kW)</td>
<td>( P \leq 15 )</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>( P &gt; 15 )</td>
<td>( 97 + 2 \log P )</td>
</tr>
<tr>
<td>Lawnmowers, grass trimmers and grass edge trimmers</td>
<td>( L \leq 50 )</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>( 50 &lt; L \leq 70 )</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>( 70 &lt; L \leq 120 )</td>
<td>100</td>
</tr>
</tbody>
</table>
|                                             | \( L > 120 \) | 105 | 103***
(*) $P_{el}$ for welding generators: conventional welding current multiplied by the conventional load voltage for the lowest value of the duty factor given by the manufacturer.

$P_{el}$ for power generators: prime power according to ISO 8528-1:1993, point 13.3.2.

(**) Limit values for noise emissions from combustion-engine-driven counterbalance trucks do not apply to the counterbalance trucks referred to in Annex I, item 36, second indent of the Equipment Noise Emissions Directive, which have a maximum rated capacity of 10 tonnes. These combustion-engine-driven counterbalance trucks are only required to bear a noise marking.

(***) Indicative figures only. Definitive figures will depend on amendment of the Directive following the report required in Article 20(3). In the absence of any such amendment, the figures for stage I will continue to apply during stage II.

The permissible sound power level should be rounded to the nearest whole number (for a level lower than 0.5, use a lower number; for a level higher than or equal to 0.5, use a higher number).

The equipment mentioned above is defined in Annex I of the Equipment Noise Emissions Directive and the related methods of measuring the noise emission levels are presented in Annex III of the Equipment Noise Emissions Directive.

Section 4

**Equipment subject to noise marking**

The guaranteed sound power level must be indicated in the marking on the equipment referred to in section 3 and the equipment listed below:

1) aerial access platforms with combustion engine
2) brush cutters  
3) builders’ hoists (with electric motor) for the transport of goods  
4) building site bandsaw machines  
5) building site circular saw benches  
6) portable chain saws  
7) combined high pressure flushers and suction vehicles  
8) compaction machines (explosion rammers only)  
9) concrete and mortar mixers  
10) construction winches (with electric motor)  
11) conveying and spraying machines for concrete and mortar  
12) conveyor belts  
13) cooling equipment on lorries  
14) drill rigs  
15) equipment for loading and unloading tanks on trucks  
16) glass recycling containers  
17) grass trimmers and grass edge trimmers  
18) hedge trimmers  
19) high pressure flushers  
20) high pressure water jet machines  
21) hydraulic hammers  
22) joint cutters  
23) leaf blowers  
24) leaf collectors  
25) combustion-engine-driven lift trucks, counterbalanced (only ‘other counterbalanced lift trucks’ as defined in Annex I, item 36, second indent of the Equipment Noise Emissions Directive, with a rated capacity of not more than 10 tonnes)  
26) mobile waste containers  
27) paver-finishers (equipped with a high-compaction screed)  
28) piling equipment  
29) pipelayers  
30) snow groomers  
31) power generators (≥ 400 kW)
32) power sweepers
33) refuse collection vehicles
34) road milling machines
35) scarifiers
36) shredders and chippers
37) snow-removing machines with rotating tools (self-propelled, excluding snow-removing machines attached to vehicles)
38) suction vehicles
39) trenchers
40) truck mixers
41) water pump units (except submersible pumps).

The equipment mentioned above is defined in Annex I of the Equipment Noise Emissions Directive and the related methods of measuring the noise emission levels are presented in Annex III of the Equipment Noise Emissions Directive.

Section 5

**Placing the equipment on the market, putting the equipment into service and free movement of the equipment**

The equipment may be placed on the market or put into service only after the manufacturer or his authorized representative established in the Community has ensured that:

1) the equipment conforms with the limits set for the noise emissions in this Decree;
2) the conformity assessment procedures referred to in section 6 for the equipment have been completed;
3) the equipment bears a CE marking label referred to in section 7 and an indication of the guaranteed sound power level and is accompanied, in accordance
with section 6, by an EC declaration of conformity complying with Annex I.

If the manufacturer or his authorized representative is not established in the Community, the requirements of the Equipment Noise Emissions Directive must be complied with by anyone who places the equipment on the market in the Community or puts the equipment into service there.

Equipment which does not comply with the provisions of this Decree may be shown at trade fairs, exhibitions, demonstrations or other corresponding events. In such a case, however, the marking on the equipment must clearly indicate that the equipment does not conform and may not be placed on the market until the manufacturer or his authorized representative established in the Community has brought the equipment to conformity. Adequate safety measures must be taken to protect persons when the equipment is on show.

Section 6

Conformity assessment and EC declaration of conformity

The manufacturer or his authorized representative established in the Community must draw up an EC declaration of conformity for each type of equipment that they manufacture or place on the market. The minimum content of the EC declaration of conformity is laid down in Annex 1.

If the equipment is to be put into service in Finland, the EC declaration of conformity must be made in Finnish and in Swedish.
To indicate conformity, the equipment must bear a CE marking in the form laid down in Annex 2 of this Decree.

Before any equipment as referred to in section 3 is placed on the market or put into service, the manufacturer or his authorized representative established in the Community must perform an assessment of the conformity of each type of equipment, using one of the following procedures, which are defined in more detail in Annexes 3-5 of this Decree:

1) internal control of production with assessment of technical documentation and periodical checks (Annex 3);
2) unit verification procedure (Annex 4);
3) full quality assurance procedure (Annex 5).

Before any equipment as referred to in section 4 which is required only to bear an indication of the guaranteed sound power level is placed on the market or put into service, the manufacturer or his authorized representative established in the Community must subject the equipment to the internal control procedure laid down in Annex 6.

The manufacturer or his authorized representative established in the Community must keep a copy of the EC declaration of conformity and the technical documentation laid down in Annex 3, item 3, Annex 4, item 2, Annex 5, items 3.1 and 3.3, and Annex 6, item 3, for 10 years from the last date of the equipment’s manufacture.

Section 7

CE marking
The equipment complies with the requirements of sections 3 and 4 if it bears the CE marking indicating compliance, as laid down in Annex 2, an indication of the guaranteed sound power level and an EC declaration of conformity. The CE marking and the indication of the guaranteed sound power level affixed to the equipment must be visible, indelible and clearly legible.

The equipment may bear other markings, provided that this does not reduce the visibility and legibility of the CE marking and the indication of the guaranteed sound power level.

Where equipment referred to in section 3 for which there are set limit values for noise emissions, or equipment referred to in section 4 which is required to bear only an indication of the guaranteed sound power level fall within the scope of other statutes requiring CE marking, the marking must indicate that the equipment also fulfils the requirements laid down in those statutes. If one or more such statutes allow the manufacturer, during a transitional period, to choose which arrangements to apply, the CE marking must indicate that the equipment only complies with the statutes applied by the manufacturer. In such a case, the particulars of those statutes must be given in the documents, notices or instructions accompanying such equipment.

Section 8

Supervisory authorities

Compliance with this Decree is supervised by the occupational health and safety authorities. In the case of equipment sold as consumer goods, compliance with this
Decree is supervised by the supervisory authorities referred to in the Product Safety Act (914/1986).

The authorities referred to in paragraph 1 above must notify the relevant regional environment centre if, in the course of their supervision, they find that equipment violating the provisions of this Decree has been placed on the market or put into service. The regional environment centre must then notify the Ministry of the Environment of the matter.

Provisions on coercive measures and sanctions for cases of violation of requirements laid down in this Decree are laid down in chapter 13 of the Environmental Protection Act (86/2000).

Section 9

Notified body

The notified bodies required for compliance assessment are appointed by the Ministry of the Environment. The notified bodies must comply with the minimum requirements set out in Annex 7. Should a notified body no longer comply with the minimum requirements set out in Annex 7, its right to perform the functions of a notified body will be revoked.

Section 10

Collection of noise data

The manufacturer or his authorized representative established in the Community must send the Finnish Environment Institute a copy of the EC declaration of
conformity for each type of equipment manufactured in Finland or intended for use in Finland as the first market within the European Economic Area. The Finnish Environment Institute must supply the Commission with copies of the EC declarations of conformity.

Section 11

Entry into force

This Decree comes into force on January 3, 2002.

The second-stage limit values for noise emissions laid down in section 3 above come into force on January 3, 2006.


Section 12

Transitional provision

Type approval certificates issued in accordance with the Government Decisions repealed by this Decree and procedures for measurements related to the equipment may be used in the documentation provided in Annex 3, item 3, Annex 4, item 2, Annex 5, items 3.1 and 3.3, and Annex 6, item 3 of this Decree.
Equipment which has complied with the requirements of this Decree as of July 11, 2001 is considered to comply with the requirements of the Government Decisions repealed by this Decree.

Helsinki, July 5, 2001

Minister Ville Itälä

Legal Adviser Oili Rahnasto
ANNEXES:

Annex 1: EC declaration of conformity

Annex 2: Models of the CE marking of conformity and of the indication of guaranteed sound power level

Annex 3: Internal production control, assessment of technical documentation and periodical checks

Annex 4: Unit verification

Annex 5: Full quality assurance

Annex 6: Internal production control

Annex 7: Minimum requirements to be taken into account by Member States when appointing notified bodies

Annex 8: Unit verification, model of conformity certificate