Suppliment tal-Gazzetta tal-Gvern ta' Malta Nru. 20,777, 1 ta' Frar, 2022

Taqsima B

A.L. 35 tal-2022

ATT DWAR IL-PROTEZZJONI TAL-AMBJENT (KAP. 549)

Regolamenti tal-2022 li jemendaw ir-Regolamenti dwar Valutazzjoni u Maniġġar ta' Ħsejjes fl-Ambjent

BIS-SAĦĦA tas-setgħat mogħtija bl-artikoli 54 u 55(2) tal-Att dwar il-Protezzjoni tal-Ambjent, il-Ministru għall-Ambjent, it-Tibdil fil-Klima u l-Ippjanar wara konsultazzjoni mal-Awtorità għall-Ambjent u r-Riżorsi, għamel dawn ir-regolamenti li ġejjin:-

Titolu.

1. It-titolu ta' dawn ir-regolamenti hu r-Regolamenti tal-2022 li jemendaw ir-Regolamenti dwar Valutazzjoni u Maniġġar ta' Ħsejjes fl-Ambjent u dawn għandhom jinqraw u jinftiehmu ħaġa waħda mar-Regolamenti dwar Valutazzjoni u Maniġġar ta' Ħsejjes fl-Ambjent, hawn iżjed 'il quddiem imsejħa "r-regolamenti prinċipali". L.S. 549.37.

Jemenda r-regolamet 3 tar-regolamenti prinċipali.

2. Fir-regolament 3 tar-regolamenti prinċipali, il-kliem "bid-Direttiva tal-Kummissjoni (UE) 2015/996 tad-19 ta' Mejju 2015 li tistabbilixxi metodi komuni ta' valutazzjoni tal-istorbju, skont id-Direttiva 2002/49/KE tal-Parlament Ewropew u tal-Kunsill, mill-31 ta' Diċembru 2018" għandhom jiġu sostitwiti bil-kliem "bid-Direttiva tal-Kummissjoni (UE) 2015/996 tad-19 ta' Mejju 2015, bid-Direttiva tal-Kummissjoni (UE) 2020/367 tal-4 ta' Marzu 2020 u bid-Direttiva Delegata tal-Kummissjoni (UE) 2021/1226 tal-21 ta' Diċembru 2020."

Jissostitwixxi t-Tieni Skeda li tinsab mar-regolamenti prinċipali.

3. Fil-verżjoni bl-Ingliż, it-Tieni Skeda li tinsab mar-regolamenti prinċipali għandha tiġi sostitwita bl-Iskeda ġdida li ġejja:

"SECOND SCHEDULE

ASSESSMENT METHODS FOR THE NOISE INDICATORS REFERRED TO IN REGULATION 7(1)

Refer to Annex II to Directive 2002/49/EC of the European Parliament and of the Council, as amended.".

Jissostitwixxi t-Tielet Skeda li tinsab mar-regolamenti prinċipali.

4. Fil-verżjoni bl-Ingliż, it-Tielet Skeda li tinsab mar-regolamenti prinċipali għandha tiġi sostitwita bl-Iskeda ġdida li ġejja:

"**THIRD SCHEDULE**

ASSESSMENT METHODS FOR HARMFUL EFFECTS REFERRED TO IN REGULATION 7(2)

1. Set of harmful effects

For the purposes of the assessment of harmful effects the following shall be considered:

— ischaemic heart disease (IHD) corresponding to codes BA40 to BA6Z of the international classification ICD-11 established by the World Health Organisation;

— high annoyance (HA);

— high sleep disturbance (HSD).

2. Calculation of harmful effects

The harmful effects shall be calculated by either of the following:

— the relative risk (RR) of a harmful effect defined as

(Formula 1)

$$RR = \left(\frac{\begin{array}{c}Probability\ of\ occurrence\ of\ the\ harmful\ effect \\ in\ a\ population\ exposed \\ to\ a\ specfic\ level\ of\ environmental\ noise\end{array}}{\begin{array}{c}Probability\ of\ occurenceof\ the\ harmful\ effect \\ in\ a\ population\ \mathbf{non}\ exposed \\ to\ environmental\ noise\end{array}} \right)$$

— the absolute risk (AR) of a harmful effect defined as

$$AR = \left(\begin{array}{c}Ocurrence\ of\ the\ harmful\ effect \\ in\ a\ population\ exposed \\ to\ a\ specific\ level\ of\ environmental\ noise\end{array} \right)$$

(Formula 2)

2.1. IHD

For the calculation of the RR, with respect to the harmful effect of IHD and concerning the incidence rate *(i)*, the following dose-effect relations shall be used:

(Formula 3) for road noise.

$$RR_{IHD,i,road} = \begin{cases} e\left[\left(\ln(1.08)/10\right) * (L_{den} - 53)\right] & for\ L_{den}\ greater\ than\ 53\ dB \\ 1 & for\ L_{den}\ equal\ or\ smaller\ than\ 53\ dB \end{cases}$$

2.2. HA

For the calculation of the AR, with respect to the harmful effect of HA the following dose-effect relations shall be used:

for road noise;

$$AR_{HA,road} = (78.9270 - 3.1162 * L_{den} + 0.0342 * L_{den}^2)/100$$

(Formula 4)

for railway noise;

$$AR_{HA,rail} = (38.1596 - 2.05538 * L_{den} + 0.0285 * L_{den}^2)/100$$

(Formula 5)

for aircraft noise.

$$AR_{HA,air} = (-50.9693 + 1.0168 * L_{den} + 0.0072 * L_{den}^2)/100$$

(Formula 6)

2.3 HSD

For the calculation of the AR, with respect to the harmful effect of HSD the following dose-effect relations shall be used:

for road noise;

$$R_{HSD,road} = (19.4312 - 0.9336 * L_{night} + 0.0126 * L_{night}^2)/100$$

(Formula 7)

for railway noise;

$$AR_{HSD,rail} = (67.5406 - 3.1852 * L_{night} + 0.0391 * L_{night}^2)/100$$

(Formula 8)

for aircraft noise.

$$AR_{HSD,air} = (16.7885 - 0.9293 * L_{night} + 0.0198 * L_{night}^2)/100$$

(Formula 9)

3. Assessment of harmful effects

3.1 The exposure of the population shall be assessed independently for each noise source and harmful effect. Where the same people are simultaneously exposed to different noise sources, the harmful effects may, in general, not be cumulated. However, those effects may be compared to assess the relative importance of each noise.

3.2 Assessment for IHD

3.2.1. For IHD in the case of railway and aircraft noise, the population exposed above adequate L_{den} levels is estimated as subject to an increased risk of IHD, while the exact number *N* of cases of IHD cannot be calculated.

3.2.2. For IHD in the case of road noise, the proportion of cases of the specific harmful effect in the population exposed to a RR that is calculated to be caused by environmental noise is derived, for the noise source *x* (road), harmful effect *y* (IHD) and for the incidence *i* by:

$$PAF_{x,y} = \left(\frac{\sum_j [p_j \cdot (RR_{j,x,y} - 1)]}{\sum_j [p_j \cdot (RR_{j,x,y} - 1)] + 1} \right)$$

(Formula 10)

Where:

— $PAF_{x,y}$ is the population attributable fraction,

— the set of *j* noise bands is made up of single bands spanning over a maximum of 5 dB (e.g.: 50-51 dB, 51-52 dB, 52-53 dB, etc. or 50-54 dB, 55-59 dB, 60-64 dB, etc.),

— p_j is the proportion of the overall population *P* in the area assessed that is exposed to the *j*-th exposure band, which is associated with a given *RR* of a specific harmful effect $RR_{j,x,y}$. The $RR_{j,x,y}$ is calculated using the formulas described in point 2 of this Schedule, calculated at the central value of each noise band (e.g.: depending on availability of data, at 50,5 dB for the noise band defined between 50-51 dB, or 52 dB for the noise band 50-54 dB).

3.2.3. For IHD in the case of road noise, the total number N of cases of IHD (people affected by the harmful effect *y*; number of attributable cases) due to the source *x* is then:

$N_{x,y} = PAF_{x,y,i} * I_y * P$ (Formula 11)

for road.

Where:

— *PAFx,y,i* is calculated for the incidence *i*,

— *Iy* is the incidence rate of IHD in the area under assessment, that can be obtained from statistics on health for the region or country where the area is,

— *P* is the total population of the area under assessment (the sum of the population in the different noise bands).

3.3. For HA and HSD in the case of road, railway and aircraft noise, the total number N of people affected by the harmful effect *y* (number of attributable cases) due to the source *x*, for each combination of noise source *x* (road, railway or aircraft source) and harmful effect *y* (HA, HSD), is then:

$N_{x,y} = \Sigma_j [n_j * AR_{j,x,y}]$ (Formula 12)

Where:

— $AR_{x,y}$ is the AR of the relevant harmful effect (HA, HSD), and is calculated using the formulas set out in point 2 of this Schedule, calculated at the central value of each noise band (e.g.: depending on availability of data, at 50,5 dB for the noise band defined between 50-51 dB, or 52 dB for the noise band 50-54 dB),

— n_j is the number of people that is exposed to the *j*-th exposure band.

4. Future revisions

The dose-effect relations introduced by future revisions of this Schedule will concern in particular:

— the relation between annoyance and L_{den} for industrial noise,

— the relation between sleep disturbance and L_{night} for industrial noise.

If necessary, specific dose-effect relations could be presented for:

— dwellings with special insulation against noise as defined in the Sixth Schedule,

— dwellings with a quiet façade as defined in the Sixth Schedule,

— different climates/different cultures,

— vulnerable groups of the population,

— tonal industrial noise,

— impulsive industrial noise and other special cases.".