

Perth and Kinross Licensing Board's Policy

With Regards to Noise - Environmental Health Review

1. Introduction

- 1.1 Noise from licensed premises is one of the main causes of noise complaints both locally and nationally and, due to the typically late night occurrence of this noise, can be tricky to deal with. The main noise sources arising from licensed premises are music and patrons. This can be from functions being hosted at hotels, nightclubs, pubs or even restaurants.

2. Current Policy - Inaudibility

- 2.1 The Licensing Board's current policy [1] states:

"No noise by way of music whether amplified or not or singing and speech emanating from licensed premises shall be audible in any adjoining property between 11pm and 7am.

Premises licence holders are expected to be aware of the impact on neighbours of noise from their premises or due to the activities taking place in and around the premises. Premises licence holders are expected to take all reasonable steps to prevent noise nuisance, particularly between 11pm and 7am. Steps should be taken to avoid noise while disposing of glass bottles, and to limit any noise caused by patrons smoking outside premises and patrons leaving licensed premises. Consideration should be given to the use of door stewards to monitor and control such noise and keeping doors and windows closed, installing soundproofing and using sound tests and sound limiters. Premises licence holders may wish to seek further guidance from The Environment Service, Perth and Kinross Council.

Where significant noise issues do arise, the Licensing Board may require the premises licence holder, at their own cost, to obtain a noise impact assessment from a suitably qualified acoustic engineer and to liaise with The Environment Service, Perth and Kinross Council on that assessment”

Whilst the Licensing Board suspended the operation of this policy on 16 October 2017 and, pending review, applies the statutory nuisance test under the Environmental Protection Act 1990, the inaudibility test remains a policy option for consideration.

2.2 The inaudibility requirement between 23.00 and 07.00 has been in place for over a decade and whilst it has the advantage of being simple to understand, it also has a number of drawbacks namely:

- It is a subjective requirement meaning audibility changes for different people depending on their hearing. Additionally when a complaint becomes ongoing, people become sensitised to a particular noise and ‘tune into’ it meaning it is noticed when it would not normally be.
- Noise may be audible within a property however this may not cause annoyance to the occupant of the property.
- Inaudibility is much stricter than other night noise standards, which will typically allow some degree of noise during the night time period, due to this; inaudibility does not correlate well with Statutory Nuisance provisions nor other guidance and legislation.
- Inaudibility in a particular area will depend on the background noise level, for example in a city centre or near a busy road, the background level will be much higher than a rural location and may obscure low level noise emanating from a licensed premises.

3. Statutory Nuisance

- 3.1 Environmental Health (EH) enforces the Statutory Nuisance provisions of the Environmental Protection Act [2]. In undertaking these duties, we would not enforce to inaudibility, rather it would be along the lines of the other criteria below. We also have to take into account case law regarding Statutory Nuisance, which includes various precepts namely:

- I. Impact
- II. Locality
- III. Time
- IV. Frequency
- V. Duration
- VI. Convention
- VII. Importance
- VIII. Avoidability

- 3.2 This means that whilst noise arising from licensed premises may on occasion be intense enough to cause interference with enjoyment of domestic property, if it were happening on a relatively infrequent basis, it could not be considered a Statutory Nuisance.

The Environmental Protection Act does not define a set decibel level which would constitute a Statutory Noise Nuisance and as such other legislation and guidance has to be referred to when carrying out investigations (see Appendix 1).

The assessment for Statutory Nuisance can be very subjective and ultimately comes down to officer opinion. Investigations can take a considerable length of time and resources.

Should a Statutory Nuisance be determined arising from a licensed premises, they will still have a defence in court of 'Best Practicable Means', which means if the offender has taken all measures which are "reasonably practicable having regard to local conditions and circumstances, the current state of technical knowledge and to the financial implications" then they have a defence against Statutory Nuisance in court. This can curtail nuisance proceedings by Environmental Health, but no such restriction would be placed on action taken by the Licensing Board.

4. Agent for Change Principle for Music Venues

- 4.1 The Agent for Change Principle for music venues has recently received a lot of attention. In Scotland, the Chief Planner [3] has written to all Heads of Planning advising of the Scottish Government's support for the Agent for Change Principle; that it is supported (generally, not expressly) in existing planning policy; and that it is the Scottish Government's intention to implement the principle explicitly through future national planning policy. In England and Wales, there is the Planning (Agent of Change) Bill 2017-2019. Neither the new national policy in Scotland nor the England and Wales Bill will be in place and have effect prior to the Licensing Board's new Licensing Policy Statement taking effect on 3 November 2018. The precise terms proposed are therefore not known presently.
- 4.2 The Agent for Change Principle places the responsibility for mitigating any detrimental impact of noise on neighbours to a music venue with those carrying out the new development or operations. For example, for a new build house next to an existing music venue the responsibility for mitigating adverse effects is with the house developer. If it is a new music venue, or an existing venue is to be extended, the responsibility for mitigating adverse effects is with the venue operator.
- 4.3 The Agent for Change Principle is proposed for Planning only and for new developments or operations only in music venues. It does not cover non-music venues and does not cover existing properties where there is no development or operational change. The Chief Planner's letter also makes it clear that this does not affect the operation of noise music controls under the Environmental Protection Act, nor any consideration of licensing issues.

- 4.4 The statutory nuisance test under the Environmental Protection Act 1990 does not differentiate between new and existing premises. Statutory nuisance can still apply to an existing music venue even although the neighbouring house is built after the music venue. For that reason, Environmental Health are not suggesting the Agent for Change Principle as an option, however, it is a matter for the Licensing Board whether it wishes to consider this principle.

5. Interaction Between the Licensing Boards Policy and Statutory Nuisance

- 5.1 PKC's EH Team receive several noise complaints regarding licensed premises each year and quite often the measured levels can fall somewhere in between inaudibility and statutory nuisance, leaving enforcement at the discretion of the Board. This may cause inconsistencies and difficulty for Board members when deciding on outcomes.
- 5.2 A proactive approach is currently undertaken whereby EH will respond to consultation on licences, including major variations. This is very useful for reducing the likelihood complaints happening and as a minimum serves to make the licensee aware of Board policy, however depending on the proposal, a noise impact assessment may be required. It is recommended that EH continue to respond to consultations from Licensing and attend the Board meetings where required to provide technical advice.

6. Potential Future Policy

- 6.1 There is beginning to be a move away from inaudibility as a requirement in policy and planning conditions, although many Licensing Board's still have inaudibility as part of their Licence Policy. Edinburgh City Licensing Board have moved away from inaudibility as a requirement for licensed premises towards a policy of amplified music not causing "an audible nuisance in neighbouring properties" linking nuisance in with Scottish Government guidance [4]. The Agent for Change Principle may also be applied to music venues in Planning.

6.2 If the Board were to move away from inaudibility as a policy for noise post 23.00, what should replace it? There has been some research and policy developed regarding this but unfortunately much is over 10 years old and not widely adopted.

6.3 Summarised in Table 1 below are options for noise limits as part of the Licensing Boards policy, further background is given in Appendix 1

Table 1: Options for Noise Limits

Options	Measured Noise Level	Pros	Cons
1. Inaudibility	N/A	Simple to assess. Can be done without a noise meter by Licensing (LSO) Standards Officer	Strict standard, subjective
2. Absolute Levels	30-35dBA	Relatively easy to measure with a noise meter	Does not take account of background levels which can be above this level in urban areas
3. Above Background Levels	5dB above background	Takes into account background level	More difficult to measure. Requires a comparison measurement with the music off
4. Combination	31dB or 10dB above underlying	Best of both worlds i.e. absolute and above background. Ties in with Antisocial Behaviour Act levels	More complex to understand and measure
5. Low Frequency Levels	47dB in 63Hz band and/or 41dB in	Takes account of the most annoying	Again more complex to understand and

	125Hz octave bands	aspect of music noise. Can be used in combination with Option 4	measure
6. Statutory Nuisance	All the above measurements would be taken and assessed	Can result in service of an Abatement Notice	Complex to measure, more difficult to assess, very subjective, does not address short duration/infrequent noise nuisance

6.4 Inaudibility is a very strict condition which can lead to difficulties in enforcement due to differing sensitivities of officers and complainer's. Additionally an overly strict policy on music noise could be at odds with the Perth City Plan and vision to have a "vibrant arts and culture scene".

For example; music from a venue in the city centre has always been audible within a neighbouring property, however the occupant is not annoyed by the noise and therefore does not complain. This occupant moves out and a new resident moves in and subsequently complains about the music noise. The licensee has been unaware that music from his venue has been audible and has not changed his operations. Is it unreasonable to expect complete silence when moving into a property in the city centre next to a music venue?

However, this has to be balanced with the rights of nearby residents to enjoy their property without unreasonable interference, including sleep interference.

In comparison, Statutory Nuisance can be notoriously difficult to prove as it has to take into account other factors such as: locality; frequency; sensitivity as well as proving the nuisance is not transient. This can be difficult for complaints which are worse some weekends than others. There is also the defence of "best practicable means" in nuisance cases which can prevent satisfactory resolution for complainants.

6.5 If the Licensing Board is minded to move away from inaudibility as a policy post 23.00, Environmental Health's recommendation would be to move to the Combination criterion (option 4) which brings levels into line with those laid down by the Scottish Government for residential to residential noise as specified under the antisocial behaviour regime. It is also recommended that additional controls on low frequency noise (option 5) be applied, as this would help with the bass beat from music which is perhaps the most annoying. The low frequency controls set down in Table 1 are still strict, but not inaudible.

Having assessed a number of cases that have been investigated previously including those that have been presented to the board it has been found that some that have had on occasion an audible bass beat but not met the criteria for Statutory Nuisance have been above the option 5 levels, whilst others have been found to be below the suggested low frequency levels.

Unfortunately, option 4 levels cannot be measured retrospectively therefore whether these complaints were above/below that level cannot be assessed at this time.

6.6 Environmental Health's recommendation is that the partnership working continues with Licensing to resolve noise complaints, but that a more objective criterion is adopted as policy. EH would continue to act as consultees to the Board for new premises licence applications, major variations and for premise licence reviews. We would revise the template for presentation of information to the Board to take account of the new noise policy. Working in conjunction with the Licensing Department is seen as the most effective means of seeking resolution to noise complaints from licensed premises in that;

- The LSO has an in depth knowledge of licensed premises and can also highlight other issues ensuring a more holistic approach to enforcement.
- The LSO can mediate between a complainer and the premises licence holder in an effort to reach a satisfactory level without formal measurements having to be taken.
- In our experience licensees have considerably more respect for the Licensing regime rather than the Statutory Nuisance regime as it could directly affect their business operations.

References

- [1] Perth and Kinross Licensing Board Policy Statement under the Licensing (Scotland) Act 2005 2013 – 2018 (2014).
- [2] Environmental Protection Act 1990, Part III (as amended).
- [3] Chief Planner's Letter, 16 February 2018.
- [4] The Scottish Government (2009), *Guidance to accompany the Statutory Nuisance Provisions of the Public Health etc (Scotland) Act 2008*.
- [5] Defra (2005) Noise from Pubs and Clubs NANR92.
- [6] Defra (2006) Noise from Pubs and Clubs (Phase II) Final Report NANR163.
- [7] Scottish Government (2005) *Guidance on Noise Nuisance, Antisocial Behaviour etc (Scotland) Act 2004*.
- [8] WHO (2000), *Guidelines for Community Noise*, World Health Organisation
- [9] BSI (2014) BS8233 *Guidance on Sound Insulation and Reduction for Buildings*
- [10] BSI (2014), BS 4142, *The Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Area*
- [11] The Noise Council (1995), *Code of Practice on Environmental Noise Control at Concerts*
- [12] DEFRA (2011), *Procedure for the Assessment of Low Frequency Noise Complaints NANR45*

Appendix 1: Technical Appendices on Options for Noise

Defra Research

The University of Salford on behalf of DEFRA undertook research in 2 phases with respect to noise from pubs and clubs, no definitive assessment technique is recommended.

The Defra Phase 1 report [5] sets the scene for developing an optimal method for assessing noise from pubs and clubs and states some likely features of this type of method would include LAeq, some form of bass prominence (in 63 and 125Hz octave bands) Some form of temporal features like bass beat evaluated by L_{10} - L_{90} in a low f octave band and should be as simple as possible without sacrificing accuracy.

The Phase 2 research [6], which is not now widely available online does not set out one optimal method, but instead gives 3 recommended approaches to this type of noise:

Absolute LAeq 5 minutes of 34dBA

$L_{A90} - L_{A90}$ (no music)

$L_{Aeq} - L_{A99.8}$ (similar to Antisocial Behaviour Act methodology)

Unfortunately, no recommendation for low frequency noise is given, which is unfortunate as this tends to be the noise causing the most issues.

The absolutely level of 34dBA may be more appropriate for highly urbanised areas in England and conurbations but could be very high for quieter villages in Perth and Kinross. It is 3 dBA above the Scottish Government recommended levels laid out in the Antisocial Behaviour Act (ASBA) [7] of 31dBA as a LAeq 5 minute measurement.

$L_{A90} - L_{A90}$ (no music) has the big disadvantage of requiring a measurement with no music playing which can be difficult.

$L_{Aeq} - L_{A99.8}$ is the approach taken for Antisocial Behaviour Act [7] and has the advantage of considering both the absolute and the background levels and does not require a period with no music playing as the background (called the underlying here) is measured in between the gaps in the songs.

Other Standards

There are a number of standards Environmental Health will use to aid them in enforcing nuisance objectively a table of these is presented below.

Table 2: Other Standards

Standard	Noise Level Night	Noise Level Day
WHO Guidelines on Community Noise (1999) [8]	L_{Aeq} 8 hour 30dB	L_{Aeq} 16hour 35dB
BS8233 (2014) [9]	L_{Aeq} 8 hour 30dB	L_{Aeq} 16hour 35dB
ASBA (2004) [7]	L_{Aeq} 5 mins 31dB	L_{Aeq} 5mins 37dB or 41dB
BS4142 (external) (2014) [10]	$L_{A90} + 5dB$	$L_{A90} + 5dB$
Noise Council Concerts CoP (1996) [11]	Inaudible	L_{Aeq} 15min 65dB

Some of the standards are more complex or contain various caveats but the most used form of the standard is included for brevity.

From the above standards BS8233, WHO and ASBA are of a very similar level and possibly the most appropriate. BS4142 , whilst for industrial/commercial noise specifically precludes music or entertainment noise and also requires a robust background measurement without the noise therefore is not deemed appropriate. The Noise Council Code of Practice is used for festivals such as T in the Park and is appropriate for one off events whereby local residents will tolerate more noise rather than for every weekend thus is deemed inappropriate.

Considering BS8233, WHO and ASBA guidance, WHO/BS8233 are quite simple to measure but have the disadvantage of not considering the background, which may be

already above 30dBA in some properties during the night. ASBA does consider this as the 31dBA is only applicable where the underlying level ($L_{A99,8}$) is under 21dB. If it is above the 31dBA limit is increased to the underlying +10dBA.

The drawback of this approach is that it is a little more complex than the other which could potentially lead to errors when officers are analysing measurements. It also does not take into account low frequency noise which WHO states:

“Where noise is continuous, the equivalent sound pressure level should not exceed 30 dBA indoors, if negative effects on sleep are to be avoided. When the noise is composed of a large proportion of low-frequency sounds a still lower guideline value is recommended, because low frequency noise (e.g. from ventilation systems) can disturb rest and sleep even at low sound pressure levels.”

Given the nature of modern bass heavy dance music, consideration should also be given to a low frequency limit to noise.

Low Frequency Limits

Low frequency noise can be a contentious issue, which leads to complaints which if measured with A weighting, may not adequately capture the potential for disturbance. This is because A weighting removes much of the low frequency content of the measured noise spectrum in favour of the more audible higher frequency noise.

Defra published research on this initially in 2005 then finalised in 2011 [12]. This lays out recommended limits at each of the one-third octave bands between 10 and 160Hz and has been quoted by the EH team in the past. The only issue with this criterion is that the report did not consider music noise in the research and states it should not be used for this. The Pubs and Clubs Defra Research does however quote this guidance:

“Based on laboratory experiments with real and simulated low-frequency noise, Moorhouse et al. derived a proposal for a UK low-frequency noise criterion. Their test sounds were typical of the kind of noise complained of by UK low-frequency noise sufferers and so did not include music. Nevertheless, following the promising results of McCulloch, both DIN 45680 and the proposed UK variant should be

investigated further as assessment techniques for pub and club noise. The Moorhouse proposed method is as follows:

Record L_{eq} , L_{10} and L_{90} in the third octave bands between 10Hz and 160Hz.

If the L_{eq} , taken over a time when the noise is said to be present, exceeds the values in Table 3 it may indicate a source of LFN that could cause disturbance. If the noise occurs only during the day then 5dB relaxation may be applied to all third octave bands. If the noise is steady then a 5dB relaxation may be applied to all third octave bands. A noise is considered steady if either of the conditions a. or b. below is met:

a. $L_{10}-L_{90} < 5\text{dB}$

b. the rate of change of sound pressure level (Fast time weighting) is less than 10dB per second where the parameters are evaluated in the third octave band which exceeds the reference curve values (Table 3) by the greatest margin.”

Table 3: table of limits is given as:

1/3 Octave Bands (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
Limit (dB)	92	87	83	74	64	56	49	43	42	40	38	36	34

Not many Local Authorities quote these, one which does is Manchester within their planning guidance: **‘Music noise levels in the 63Hz and 125Hz octave centre frequency bands (L_{eq}) should be controlled so as not to exceed (in habitable rooms) 47dB and 41dB (L_{eq}), respectively.**

These limits seem to be calculated by adding together the 50, 63 and 80Hz limits and 100, 125 and 160Hz respectively from Table 3 above.

Appendix 2: Acoustic Terminology

Decibel (dB)

The ratio of sound pressures which we can hear is a ratio of $10^6:1$ (one million: one). For convenience, therefore, a logarithmic measurement scale is used. The resulting parameter is called the 'sound pressure level' (Lap) and the associated measurement unit is the decibel (dB). As the decibel is a logarithmic ratio, the laws of logarithmic addition and subtraction apply.

dB(A)

The unit used to define a weighted sound pressure level, which correlates well with the subjective response to sound. The 'A' weighting follows the frequency response of the human ear, which is less sensitive to low and very high frequencies than it is to those in the range 500Hz to 4kHz.

In some statistical descriptors the 'A' weighting forms part of a subscript, such as LA10, LA90, and LAeq for the 'A' weighted equivalent continuous noise level.

Equivalent continuous sound level

An index for assessment for overall noise exposure is the equivalent continuous sound level, Leq. This is a notional steady level which would, over a given period of time, deliver the same sound energy as the actual time-varying sound over the same period. Hence fluctuating levels can be described in terms of a single figure level.

Frequency

Frequency is the rate of repetition of a sound wave. The subjective equivalent in music is pitch. The unit of frequency is the hertz (Hz), which is identical to cycles per second. A 1000Hz is often denoted as 1kHz, e.g. 2kHz = 2000Hz. Human hearing ranges approximately from 20Hz to 20kHz. For design purposes the octave bands between 63Hz to 8kHz are generally used. The most commonly used frequency bands are octave bands, in which the mid frequency of each band is twice that of the band below it. For more detailed analysis, each octave band may be split into three one-third octave bands or in some cases, narrow frequency bands.

Statistical noise levels

For levels of noise that vary widely with time, for example road traffic noise, it is necessary to employ an index which allows for this variation. The L_{10} , the level exceeded for 10% of the time period under consideration, and can be used for the assessment of road traffic noise (note that L_{Aeq} is used in BS 8233 for assessing traffic noise). The L_{90} , the level exceeded for 90% of the time, has been adopted to represent the background noise level. The L_1 , the level exceeded for 1% of the time, is representative of the maximum levels recorded during the sample period.

A weighted statistical noise levels are denoted L_{A10} , dBL_{A90} etc. The reference time period (T) is normally included, e.g. $dBL_{A10, 5min}$ or $dBL_{A90, 8hr}$. A weighted statistical noise levels are denoted L_{A10} , dBL_{A90} etc. The reference time period (T) is normally included, e.g. $dBL_{A10, 5min}$ or $dBL_{A90, 8hr}$.

Typical levels

Some typical dB(A) noise levels are given below:

Noise Level, dB(A)	Example
130	Threshold of pain
120	Jet aircraft take-off at 100m
110	Chain saw at 1m
100	Inside disco
90	Heavy lorries at 5m
80	Kerbside of busy street
70	Loud radio (in typical domestic room)
60	Office or restaurant
50	Domestic fan heater at 1m
40	Living room
30	Theatre
20	Remote countryside on still night
10	Sound insulated test chamber