A Hong Kong Approach to Control Noise from Outdoor Entertainment Activities

Sam W. H. Wong, K. S. Chan, Y. K. Kam and P. S. Ng

Environmental Protection Department, The Government of the Hong Kong Special Administrative Region, Level 11 Grand Central Plaza, Tower I, Shatin, N.T., Hong Kong, The People’s Republic of China

Abstract: Hong Kong is a crowded metropolis with most of its 6.5 million people crammed on flat land of some 300 square kilometres. People work and play in a compact environment. There are insufficient open air entertainment venues in urban areas that have reasonable spatial separation from nearby residential buildings. Football pitches, playgrounds and parks would often be used for holding public entertainment activities. Noise from these activities is prone to cause annoyance and attract complaints especially when events are run uncontrolled. This paper describes the approach adopted by the control authority in dealing with these events in order to balance the residents’ enjoyment of their property rights and the desire of the community in pursuit of various kinds of entertainment.

OUTDOOR ENTERTAINMENT VENUES IN HONG KONG

Being cosmopolitan, Hong Kong has great demand for outdoor activities of different origins and cultures from the east and the west. These activities include concerts, cultural activities, variety shows, carnivals, funfair and religious gatherings. Aiming to draw a larger audience and better publicity, the activities are mostly held in open air football pitches, playgrounds, parks and sitting-out areas, administered by the municipal councils. Annually, there are about 1600 events being held in 800 outdoor venues. In addition, there are also numerous smaller scale entertainment activities held by private bodies in open space of private housing estates, sports ground of schools etc. Most of the open air venues are, however, located in the midst of high-rise residential buildings and they are not designed to hold entertainment events. Since event organisers would have propensity to use high power amplification systems for their activities, noise, especially from loud music concerts, would easily spill over to neighbouring domestic premises. It is not uncommon in the compact environment of Hong Kong that the breaking out amplified noise from rock concerts at some venues would exceed the prevailing background noise level by more than 20 dB(A).

CONTROL OF ENTERTAINMENT NOISE

Noise from outdoor entertainment activities at a public venue is controlled under the Noise Control Ordinance (1) and enforced by the Environmental Protection Department (EPD). In response to complaints, EPD would, after confirming the noise is causing an annoyance to nearby residents, issue a Noise Abatement Notice to require the venue owner, management organisation or the event organiser to abate the noise within a given period. Failure to comply with the requirements of the Notice would constitute an offence under the Ordinance. Very often, event organiser faces the difficult dilemma of complying requirements of the Notice on one hand and satisfying event participants on the other who demand high music volume for greater enjoyment. This is particularly the case for western style pop concerts. EPD has therefore adopted an approach in deriving the control noise limits without causing undue constraints on the activities and at the same time to be answerable to complainants from nearby domestic premises.

PRACTICAL NOISE CONTROL CRITERIA

Annoyance caused by environmental noise is, in general, a function of physical and psychological variables not all of which are measurable or controllable. Unlike transportation or industrial noise, music has some unique characteristics which convey information and feelings to a receiver. Different people react differently to a piece of music. Various approaches and different noise descriptors have been adopted in different countries for controlling excessive noise from entertainment events or predicting the likelihood of complaints against the noise.
With reference to many control guidelines adopted in other countries [(2) to (7)] and having taken into account the local Hong Kong context of living as well as the frequency of usage of different venues, EPD has adopted the following control guideline for control of noise from outdoor entertainment activities.

"The Leq noise level measured for any 15 minute period of the outdoor entertainment event or rehearsal at any affected noise sensitive receiver shall not exceed the prevailing background noise level (in Leq) by more than 10dB(A) between 7:00 a.m. and 11:00 p.m., and for the night-time period between 11:00 p.m. and 7:00 a.m., noise from the event or rehearsal shall not be audible inside the premises of a noise sensitive receiver."

The Leq measurement has been widely used and found reliable for assessing fluctuating noise. It is hence adopted in the control criteria. Experience revealed that residential premises likely to be affected by entertainment noise from the open air venues are not significantly affected by traffic noise. Background measurement in terms of Leq is used for case of comparison. The night-time inaudible requirement is in line with other countries.

PRAGMATIC ENFORCEMENT APPROACH

In many situations entertainment events are one-off events held on holidays or outside office hours. Immediate response to complaints and confirmation of noise annoyance become increasingly difficult to fulfill. EPD has, however, adopted a pragmatic 2-prong approach. This includes (i) continuous liaison with the venue owners - the municipal councils, on preventing occurrence of noise disturbance, and (ii) proactive monitoring on those potential noisy events.

On (i), the venue owners have to take a more positive role in ensuring noise from the events would not cause annoyance. EPD has provided the two municipal councils briefings on the control of entertainment noise and various possible measures to minimise noise emission. The councils would impose control measures as conditions of approval for leasing the venues to the organisers to follow. Taking into account of type and duration of the event, time of occurrence, presence of nearby influencing noise sources, location of nearby noise sensitive receivers, and any previous complaints received, the control measures to be provided are site specific which would include a) orientation of the stage; b) use of directional speakers; c) notification to nearby residents of details of the events; d) provision of an attended telephone line to deal with noise complaints and to correct excessive noise outbreak immediately; e) restrictions on time periods for rehearsal and preparatory work; and, for some large scale potential noisy events, f) self-monitoring of the noise at the nearest residential premises by designated personnel. Notwithstanding these various control measures, it is not uncommon that the municipal councils have to refuse the leasing of outdoor venues which are considered not suitable for some specific noisy entertainment activities.

On (ii), EPD would carry out spot checks on some of the potential noisy events. These spot checks would also serve the purpose of information gathering for response to complaint, if any, and forming a database for future reference.

CONCLUSION

With the above 2-prong approach of controlling noise from outdoor entertainment activities put in place since the middle of 1996, there were, on average, about 50 complaints registered from the 1600 entertainment events held annually. In providing immediate attention to each complainant as called for in the 2-prong approach, none of the 50 registered cases needs any further action under the Noise Control Ordinance. The approach developed is found successful in minimising the annoyance caused by noise from outdoor entertainment activities.

REFERENCES

1. Noise Control Ordinance, Cap.400, Laws of Hong Kong.