

How the Americans tackle noise

The UK Government wants localism and cut central guidance. The US abolished federal noise enforcement 30 years ago – leading to a myriad of local noise byelaws. Is this the future for Britain? Lis Stedman reports

As George Bernard Shaw once sagely observed, the US and UK are “two nations separated by a common language”. The differences are, of course, significant but not sufficient to create misunderstanding (usually), but can the same be said of the US approach to noise?

One of the interesting US tools is expressed best at the local level, and that is the noise ordinance. Ordinances in their local application resemble UK bye-laws, can also apply to issues other than noise and at other levels, and it is at city or county level that they have the potential to be a very specific (and sometimes quirky) tool in the noise armoury.

By way of background, the US has a history of noise regulation not dissimilar to the UK, perhaps as we see with the adoption of the NPPF, the federal government has pulled back from its overarching jurisdiction over noise.

Dr Robert Chanaud, a US noise expert who has written many noise guidelines and a manual on noise ordinances, explains that the US equivalent of the UK Environmental Protection Act 1990 was the Noise Control Act of 1972, which empowered the US Environment Protection Agency (US EPA)

to regulate noise emissions.

The US EPA duly wrote regulations on emissions from trains, trucks and some construction equipment but, Dr Chanaud notes, “there is no evidence that these regulations are enforced on a federal level”.

Dr Chanaud explains that the demise of federal noise enforcement in 1982 has resulted in almost all of the 50 states developing their own statutes to control noise (is this the shape to come for the UK under the current localism trend and abolition of central guidance?). He observes: “There is no uniformity to them. For a time, many states had environmental protection officers, one duty of which was to enforce the noise statutes. At the present time, there is little evidence that the statutes are being enforced strictly. In fact, most states have laws protecting shooting ranges from noise litigation.”

Not only that, but because urban areas have encroached on formerly rural farming areas, many states have adopted “right to farm” statutes to protect farmers from complaints about farming activities, including noise.

Noise ordinances can be established at county level (usually in rural situations) or at city level, and vary, according to Dr Chanaud, from “no ordinance to very comprehensive ordinances that cover all major noise sources.”

Most ordinances are enforced based on complaints, he says, and monitoring “appears only to be done when citizens are aroused about particularly loud sources, such as unsilenced motorcycles”. He adds that there is no evidence that local authorities currently have environmental protection officers as they once did, and that complaints are directed to law officials such as sheriffs or the police. “Enforcement depends strongly on the activity and staffing of such officers,” he notes. Interestingly, he adds: “Enforcement is most effective against offenders where technical – sound level – measurements are *not* needed.”

The non-technical and widely used limit in the US is “clearly audible”, Dr Chanaud explains. “This doesn’t require a sound level meter and can be applied by a policeman, typically to loud music, singing, barking dogs or shouting.”

On the technical side, as in the UK, the US uses both immission (noise at the

receiver’s boundary, typically a listener property line) and emission (source emitted noise) limits. Dr Chanaud says: “In the US, it appears that enforcement is by police equipped with meters, and with authority to stop offending vehicles to test them. This is

seldom done since it requires continual monitoring or consistent complaints.”

In terms of objective metrics, as well as L_{eq} , the US has a number used mainly for land use planning such as L_{dn}

(day/night) and the Community Noise Equivalent Level (CNEL, a 24-hour averaged ambient noise metric with a 5dB weighting factor added between 7pm and 10pm, and a 10dB weighting for 10pm to 7am). The latter is used when judging the effect of aircraft noise levels on a community.

Despite the preference for non-technical limits, there are numerous examples where noise nuisance is defined more precisely – for instance, Fort Worth recently approved new absolute (though fairly generous) maximum noise limits of 70dBA day and 60dBA night for residential areas, measured at the property line, and 80dBA day and 70dBA night for commercial and mixed use areas.

Exceptions include building ventilation and property maintenance, public and school properties, government functions and airport, railway and vehicular noise. This ordinance retains a previous non-technical prohibition on “unreasonable noise” and prohibits animals from making “unprovoked” noise for more than ten minutes. Being in Texas, it specifically does not address gas drilling noise.

Dr Chanaud identifies the key drivers and pressures behind US noise law enforcement: “Public pressure is generally what results in noise laws at every level of government. Counter pressures are generated by government officials that consider the issue unimportant or the costs too great, by vested interests such as gun lobbies, motorcycle manufacturers, and race track operators and fans.

“The ratio of lobby money to citizen money is enormous, so creating enforceable laws is very difficult,” he adds. “In both the UK and the US, the availability of nuisance suits to citizens is a great leveller, but few



CURIOUS ORDINANCES

The following are thought to be genuine US noise ordinances:

- In Apple Valley, it is illegal for ducks to quack after 10pm within the city limits;
- In Berkeley, it is illegal to whistle for a lost canary before 7am;
- An ordinance in upmarket Beverly Hills states that “no male person shall make remarks to or concerning, or cough or whistle at, or do any other act to attract the attention of any woman upon or travelling along any of the sidewalks”;
- In Pomona, the law states that “no person shall holler, shout, bawl, scream, use profane language, dance, sing, whoop, quarrel or make any unusual noise or sound in any house in such a manner as to disturb the peace and quiet of the neighbourhood”;
- In Hartford it is illegal to sing in a public place in a bathing suit;
- In Cicero, it is illegal to hum on public streets on a Sunday;
- In Paulding, the law states that a policeperson may bite a dog to quiet it;
- In Miami, it is illegal to make any “unnecessary noises” within 100ft of any portion of the grounds or premises of a hospital or other institute for the sick, or a school.



● continued overleaf

are willing or able to spend the money or time with protracted suits, except in extreme cases. One example in the US is the propane cannon bird scarers used by farmers. The levels and continuous nature of the sound are about what one would find on a battlefield. They have resulted in successful court cases.”

Noise ordinances can be very specific or very general, but nevertheless the US law suffers various issues. Dr Chanaud notes: “The surveys on noise in the US were made many years ago and focused on noise sources that were prominent then. The provisions in present day noise ordinances, such as those represented in the Noise Ordinance Manual, do not distinguish which are of major importance.”

He adds: “The major ones depend on location. For example, air propeller boats are a major noise source in Florida; propane cannons are a major source in Oregon and Washington. Harley motorcycles are a major source in most urban areas, and all-terrain and snowmobiles are a major source in both public and private wooded areas. Loud music, parties, and barking dogs are probably the most ubiquitous noise sources in suburban areas and are normally handled by local police.

“Defence against noise intrusion, mainly by mega-churches – traffic, or bells – is based on the weak concept of ‘freedom of religion’ and is supported by the American Defense Fund, who are attempting to fight off the rapid growth of non-theistic and noise impacted citizens.”

The Noise Ordinance Manual underlines other issues that are particular to the US – for instance, vague, subjective terms such as “raucous” and “excessive” have been found to violate the First and Fourteenth Amendments to the US Constitution.

Shooting ranges – of which there are many – are also problematic, because the US Constitution enshrines the right to bear arms. The National Rifle Association vigorously defends that right, and has been instrumental in persuading most states to have a “shooting range protection act” that exempts existing ranges from prosecution for noise. State law trumps any local laws, so this is a serious issue – the advent of large calibre and assault weapons means noise levels can reach in excess of 150dB.

Some states do take action – for instance, Arizona has a 10pm to 7am curfew on all ranges – but many actively support shooting. Colorado, remarkably, declares that noise restrictions on shooting ranges “work to the detriment of public health, welfare and morale”. Interestingly, L_{eq} is the metric used in Arizona to measure noise

levels for its curfew, which doesn’t capture impulsive sounds terribly well and means it is theoretically possible to discharge an extremely large weapon (such as a howitzer) in the small hours, as long as it’s not fired often.

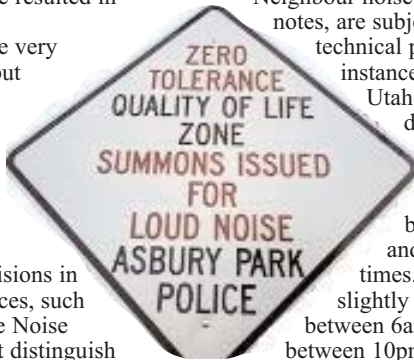
Neighbour noise limits, the manual notes, are subject to some interesting technical provisions – for instance, Salt Lake City in Utah considers a noise disturbance to have been committed if the interior ambient noise level is raised by 5dB between 7am and 10pm, and by 3dB at other times. Minneapolis has a slightly less stringent 10dB between 6am and 10pm and 5dB between 10pm and 6am.

Charlotte, North Carolina, limits dwelling unit levels to an absolute 55dBA between 9am and 9pm and 50dBA at other times, and New Jersey actually has an extremely specific maximum level in each octave band, applied to any source, interior or exterior. One can speculate that the sound insulation market in such places must be thriving. The manual recommends a non-technical “clearly audible” limit.

Wind turbines, of course, are common in the US and cause similar problems to those often cited this side of the pond. Some states have introduced quite tough restrictions – New Hampshire, for instance, has a 55dB noise level limit at the turbine site property line, not the receiving property line.

Motor vehicles are also subject to sound levels, with 76dBA below 35mph and 82dBA above that speed being commonly used in ordinances, according to the manual, though it isn’t clear how this is measured. Manufacturers including Harley-Davidson have resisted motorcycle noise limits, according to the manual, though New Hampshire for example has a state limit of 106dBA at 20 inches. Denver, Colorado, has an ordinance that makes it unlawful for owners to “modify, tamper with, alter or change” any motor vehicle in any manner that causes the sound emission to exceed a level set in a given table. Motorbikes have to have EPA-approved exhaust silencers.

The US also has to pay more heed to vehicles that are fairly rare in the UK such as snowmobiles, dune buggies, and the fan-propelled airboats commonly used in the Florida Everglades. Large, idling vehicles are also subject to restrictions in some places – Chicago limits idling trucks to four minutes within 150ft of a residence, whereas Salt Lake City allows 15 minutes idling time. There are obvious exemptions such as buses and active concrete mixers.



Rail noise is problematic, as trains cross state boundaries and are therefore considered a federal issue – federal limits on rail noise are extremely generous, at 90dBA under any conditions, though the manual notes that some places have tried to enforce their own limits – Colorado Springs considers railroad rights of way as industrial zones and restricts sound levels to those specified for such areas. Train horns can only be silenced at crossings when communities install safety measures to compensate – only then can a community establish a “quiet zone”.

Are the US and the UK that different in their approaches to noise? Dr Chanaud thinks at heart the answer is no. “The differences are based on the current noise problems in each country – however, some such as road and airport noise, are identical.

“Because the US is much larger, the important problems vary greatly with geography. The failure in most noise laws is a failure to distinguish between immission and emission controls – a classic example in both countries is the sound from a music venue. Should the sound level be reduced to meet immission standards at only the complainant’s property line, or should the sound emission of the source be reduced to protect all possible listeners, including the attendees? There is also a failure to appreciate the insidious impact on citizen health and welfare by officials, since there is seldom an immediate visible impact.”

UK CIEH policy officer Howard Price takes the view that the UK’s system is different. He says: “There is very little by way of byelaws here. What there is, is centrally sanctioned and would be pretty uniform. What would vary would be the take-up.” In the UK, the government publishes model byelaws and individual areas decide whether to adopt them or not and, as Price comments, “it would be very unusual for the government to sanction anything outside the model”.

In addition, byelaws cannot be applied where there are statutory provisions. As with state and city law, there is very much a hierarchy. Price sees value in the UK approach. “Consistency has something to recommend it. It’s not satisfactory if you move from area to area and the law changes.” Even though the current government has a much-loved “localism” agenda the essential framework remains (at least to date). Price adds: “There is a good argument to say that if something deserves to be illegal, it should be illegal everywhere.”

The US would doubtless argue that greater autonomy allows laws to be tailored to particular requirements. Which approach is better? Perhaps it is best, tactfully, to opt for a completely different language and say – vive la difference!