

Public Bill Committee

21st November 2022

Dear Sir

Retained EU Law (Revocation and Reform) Bill (the Bill)

I am writing on behalf of the Institute of Acoustics (IOA)¹ and with the approval its Governing Body.

There are many regulations within the scope of this Bill which affect the management of noise and vibration in our society. They include regulations which

- assist with the management of environmental, neighbour and neighbourhood noise which affect people's health and quality of life.
- protect employees from the adverse effects of workplace noise and vibration; and
- address the anthropogenic noise which affects the marine environment.

Environmental, neighbour and neighbourhood noise

Just over 20 years ago, the then Secretary of State for the Environment described noise as the Cinderella pollutant. Many would argue it still is. Having said that, we do have in place policies and guidance which do provide a framework for the effective management of noise. The current overarching policy is set out in the Noise Policy Statement for England (NPSE)². It was published in 2010 and has been endorsed by subsequent administrations. Similar policies exist in the other Devolved Administrations.

The effective implementation of the NPSE relies on regulations which form part of the scope of the Bill. It is essential that these regulations remain in place as they provide us with essential tools for the effective management of noise and vibration. These include:

- Regulation (EU) No 540/2014 – which sets the sound level of motor vehicles approved under Regulation (EU) 2018/858 and of replacement silencing systems.
- Regulation (EC) No 1222/2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters. This places obligations on tyre suppliers, distributors and retailers to provide tyre labels that describes information about its fuel efficiency, noise, wet grip performance.
- Noise Emission in the Environment for Equipment by Equipment for use outdoors 2001/1701. The requires that various types of equipment do not exceed permissible sound power levels before being placed on the UK market or put into service

¹ **The Institute of Acoustics** (IOA) is the UK's professional body for those working in the field of acoustics, sound and noise management. Its 3,000 members include consultants, academics and regulators and its activities include working for the building industry, developers and local authorities in all matters associated with sound and noise management in the built and natural environment.

² Noise Policy Statement for England (Defra, 2010)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69533/pb13750-noise-policy.pdf

- The Railway Interoperability Regulations – SI 2011/3066 which limits the noise emitted by railway locomotives and other railway vehicles
- The Town and Country Planning (Development Management) England Order 2015/595. This sets out the procedural arrangements for applications for planning permission including applications for permission for what is known as “EIA development” (defined in the TCP (Environmental) Regulations 2017 (2017 EIA Regs). This requires the noise impact of a development to be assessed including any potential effects on human health

Research has shown that exposure to environmental noise causes the second highest adverse health effects on the population after air pollution. We would only know this through implementing the following regulations:

- The Environmental Noise (England) Regulations 2006 (as amended).

These regulations not only provide a means of capturing the necessary data, they also require measures to be taken to reduce the adverse noise impact from primarily transportation noise sources. Therefore, these regulations are another essential tool for effective noise management.

Implementing these Regulations also enabled us to determine that the health and quality of life costs of exposure to road traffic noise is around £7 - £10 billion pounds per year

Management prior to EU Membership

It has to be remembered that some of these measures existed in our legislation before we joined the EU. For example, the noise from individual road traffic vehicles was regulated. Consequently, just because the instrument appears to have been based on meeting a European obligation, does not necessarily mean that we only adopted it because we were members of the EU.

Occupational Noise and Vibration

Prior to joining the EU, legislation existed in UK law to protect employees from the adverse effects of noise.

In order to continue to protect our workforce from the adverse effects of noise and vibration, maintaining these regulations is essential.

- Control of Noise at Work Regulations 2005 (S.I. 2005/1643)
The Regulations place a duty on employers to reduce the risk to their employees' health from exposure to noise at work.
- Control of Vibration at Work Regulations 2005 (S.I. 2005/1093).
The Regulations aim to protect workers from risks to health from vibration. The regulations introduce action and limit values for hand-arm and whole-body vibration.

In addition, it is essential to maintain the regulations about the provision of personal protective equipment (PPE) to employees, and ensuring adequate quality of PPE on the market:

- Personal Protective Equipment at Work Regulations 1992 (S.I. 1992/2966);
- Personal Protective Equipment (Enforcement) Regulations 2018 (S.I. 2018/390).

Regulations also exist so that machinery placed on the market for use in the workplace is safe, including with respect to noise and vibration emissions.

- Provision and Use of Work Equipment Regulations 1998 (S.I. 1998/2306);
- Supply of Machinery (Safety) Regulations 2008 (S.I. 2008/1597)

There are also important regulations concerning effective warning signals in the workplace, including audible warning and danger signals, which are designed to keep workers safe from harm.

- Health and Safety (Safety Signs and Signals) Regulations 1996 (S.I. 1996/341)

Maintaining regulations that protect the welfare of employees is essential if economic prosperity and growth is to be achieved.

Marine

UK Regulations make it an offence to kill, injure or disturb marine European Protected Species (EPS) in UK waters, which includes all cetaceans. This includes the potential damage that may be caused by anthropogenic use of underwater sound. The regulations are managed and enforced by the Joint Nature Conservancy Committee (JNCC) (jncc.gov.uk). Working with Defra they have developed a Marine Noise Registry (MNR) to record human activities in UK seas that produce loud, low to medium frequency (10Hz – 10kHz) impulsive noise. This registry complies with the UK Government document (Marine Strategy Part One: UK Initial Assessment and Good Environmental Status, December 2012). The MNR covers:

Activities include;

- Seismic surveys (including air guns)
- Sub bottom profiling
- Impact pile driving
- Explosive detonation
- Acoustic deterrent devices
- Multibeam echo-sounders (≤ 12 kHz)

It is worth pointing out that similar requirements exist in the Ministry of Defence in respect of the Royal Navy using active sonar. These will not be discussed here for security classification reasons.

Any operator who plans to operate maritime equipment that will potentially add loud noise in the marine environment is required to conduct an Environment Impact Assessment (EIA) at the planning stage and consider alternative methods that will produce lower levels of noise (e.g. use of vibro-pile rather than impact piling). These are recorded in the MNR and summary of events after the activity has finished is also logged.

Loud underwater sounds have the potential to injure marine animals causing permanent hearing damage (Permanent Threshold Shift – PTS) or a temporary threshold shift (TTS), causing disorientation, inability to communicate or local food and in the worst case, mass deaths due to beach stranding. JNCC and EU documents contain many references with evidence of these effects.

Where it is not possible to reduce the noise levels to within safe limits then mitigation methods need to be employed. These may be physical methods to inhibit the sound from propagating through the marine environment (e.g.: bubble net/ curtains) or employing methods to ensure that no animals are within the prescribed zone where the underwater noise may cause injury. The latter employs qualified Marine Mammal Observers (MMO) to ensure that no marine mammals are observed in the specified region. JNCC have a list of approved MMO courses. As not all animals may breach the surface, or during times of poor visibility, there is also a requirement for passive acoustics monitoring (PAM) to listen for animal vocalization. MMOs and PAM operators are also aware of the requirements and can offer advice to platform managers. A number of acoustic deterrent devices exist to encourage animals to leave the specified region. In recent times, in the case of sonar, this has included a slow ramp up of the source intensity, starting at a safe level.

JNCC also publish maps showing habitat and breeding grounds for different species and their migratory path for further understanding of the risks in particular times of year and locations.

Summary

Noise and vibration affect us all to a greater or lesser extent. We need to manage them effectively in order to protect health and quality of life. Furthermore, that management facilitates growth in the economy by avoiding noise issues unnecessarily disrupting development through the early assessment and management of potential noise impacts. The profession of acoustics is also a valuable asset to the UK economy, Research in 2018 found that we contributed £4.6 billion per annum to GDP³.

It is also a complex subject but through our members, the IOA has the necessary expertise and experience to assist the Committee in its deliberations.

I have given a sample of the regulations which are important to enable the effective management of noise and vibration in society. But, as you know, there are many regulations within the scope of the Bill which impinge on this area.

The IOA, therefore, urges the Committee to retain the noise and vibration related regulations in the first instance. It is also critical that in the interests of UK-wide coverage, the corresponding regulations in the Devolved Administrations are similarly retained. Undoubtedly, there is scope with some of the regulations to make them better, but that is a task that can be tackled later.

As indicated above, the IOA would be happy to liaise with the Committee or the relevant Civil Servants in the various Government departments to provide guidance and advice on the various noise and vibration regulations. In particular our members can provide first-hand experience of how these regulations assist in the management of noise and vibration in our society.

I hope you find this evidence helpful, but please do not hesitate to contact me if you have any queries.

Regards



S.W.Turner, MA, MSc, HonFIOA
Immediate Past-President

³ UK Acoustics – Sound Economics (IOA, 2019)