

ASSESSING THE THREAT TO HEALTH FROM INADEQUATE SOUND INSULATION

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1. INTRODUCTION

The House of Lords in *Southwark LBC v Mills* and *Baxter v Camden LBC* have made it clear that there is no Common Law Nuisance where noise from ordinary domestic activities in one dwelling penetrates to disrupt the occupiers of another dwelling.

There were no allegations made, nor suggestions from the court, that noise from ordinary domestic activities could be a nuisance. The actions were taken against the landlords alleging they were responsible as the problem arose from the inadequate sound insulation. The depressing result of the decision is that landlords cannot be held liable in the civil courts where the dwelling is in the same condition as when it was let.

What other possibilities are left?

1.2 Other Legal Remedies

1.2.1 Civil Action

Civil actions could still be brought where the landlord has carried out works which could have included improving the sound insulation. Similarly, civil actions could be brought where the problem is a result of a want of repair alleging the landlord is in breach of the repairing obligations imposed by s11 of the Landlord and Tenant Act 1985. Either of these actions could be brought by the tenant or any landlord.

1.2.2 Fitness for Human Habitation

For private sector tenants and tenants of housing associations, of landlords other than local authorities, there are options available to local authorities (as enforcement agencies). The first of these options is only available where the problems is a result of disrepair. An authority could take action under s189 or s190(1)(b) of the Housing Act 1985 to require remedial action. For the first of these, the authority would need to be satisfied that the dwelling was unfit for human habitation under s604 of the Act because the disrepair was serious and made the dwelling not reasonably suitable for occupation. For the second, the authority would need to be satisfied that the dwelling, although not unfit, was in disrepair and that disrepair interfered materially with the tenant's comfort.

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1.2.3 Statutory Nuisance

Action could be taken under Part III of the Environmental Protection Act 1990 alleging that the premises are a Statutory Nuisance. Such actions could be taken by a local authority (assuming that authority is not the landlord) or by the person affected by the noise. There are, however, problems with such actions. The relevant definition of a Statutory Nuisance is found at s79(1)(a) of the 1990 Act, which states "*any premises in such a state as to be prejudicial to health or a nuisance*". (The other definition relevant to noise found at s79(1)(g) is applicable only where the noise is the problem, which was not the case in either *Mills* or *Baxter*.) For action under Part III of the Act to be successful, it would have to be proved that the state of the premises is such that it allows ordinary sounds to penetrate so as to be either 'prejudicial to health' or 'a nuisance'. As it has been held that the term 'nuisance' in this definition means a nuisance at Common Law, the effect of the House of Lords decision means such an allegation would fail. This means that Statutory Nuisance actions can only succeed if it can be shown that the state of the premises, by allowing noise to penetrate, is prejudicial to health, that is either injurious or likely to cause injury to health (s79(7) of the Act).

This Statutory Nuisance procedure, if a threat to health can be shown, is probably the best option at present and is available to all occupiers irrespective of status of the owner. Because it is the best option, this paper will concentrate on a means of proving that a lack of sound insulation can make a dwelling prejudicial to health.

2. A New Approach to the Assessment of Dwellings

In July 1998, the Minister for Housing announced that the government was to develop a new approach to the assessment of housing conditions – the Housing Health and Safety Rating System. This System has now been developed and is scheduled to be released this summer (June/July 2000).

The System provides a means of grading the severity of hazards resulting from faults to a dwelling. A fault, for these purposes, is a failure to meet the ideal whether that failure is inherent or a result of deterioration; and the ideal is what is currently perceived to be safest performance criteria that can be expected.

2.1 What is a Hazard

A hazard is the effect that may result from a fault and which has the potential to cause harm, that is an illness, condition, symptom or injury. Twenty-four categories of hazard have been identified for the System, one of which is Noise (see Figure 1).

2.2 Assessing Hazards

As it is the dwelling which is to be rated, hazards are not assessed in relation to the current occupier, but a person in an age group vulnerable to that particular hazard. Thus, risks of falls through gaps in balusters are assessed in relation to a young child, and risks from excess cold in relation to an elderly person.

The type of hazards that may be found in a dwelling vary in several ways. Some have the potential to result in death, such as risks from Carbon Monoxide. Others, such as risks associated with poor ergonomics, don't. Some are almost instantaneous in their outcome, such as a fall. For others there may be a delay between the occurrence and the outcome, such as risks from inhalation of

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asbestos fibres. For some such as explosions, the exposure to the hazard may be a very short period, while for others such as cold, the exposure may be over a long time.

Hazards associated with Excessive Low or High Indoor Temperatures including from Excessive Cold and Excessive High Temperatures
Fall Hazards including Falls on Stairs, Steps or Ramps, Falls on the Level, Falls between Levels, Falls involving Windows or from Balconies and Landings, and Falls associated with Baths etc
Hazards from Fire
Hazards associated with Hot Surfaces and Materials
Hazards associated with Damp and Mould Growth etc
Hazards from Carbon Monoxide etc including from Oxides of Nitrogen, Sulphur Dioxide, Volatile Organic Compounds, and Biocides
Hazards from Radiation
Electrical Hazards
Hazards from Noise
Hazards from Lead
Hazards from Asbestos and Other Particulates
Hazards associated with Entry by Intruders
Hazards associated with Crowding and Space
Hazards from Explosions
Hazards associated with Domestic Hygiene including associated with Pests, with the Design, Construction and Maintenance, and the Storage and Disposal of Household Waste
Hazards from Inadequate Provision for Food Safety
Hazards associated with Inadequate Provision for Maintaining Personal Hygiene
Hazards associated with Inadequate Sanitation or Drainage
Hazards from Contaminated Domestic Water
Hazards from Structural Failure
Hazards from Inadequate Lighting
Hazards from Uncombusted Fuel Gas
Entrapment and Collision Hazards
Hazards from Poor Ergonomics

Figure 1 – Potential Housing Hazards

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2.3 Generating a Hazard Score

The method devised enables different types of hazards to be compared by generating a numerical score or rating for each hazard identified. This is achieved by a formula based on the evaluation of both the likelihood of a major occurrence over the following twelve months and the severity of the outcome.

The likelihood of something is often expressed as a ratio – eg, 1 in 10 or 1 in 1,000. Judging the likelihood of an occurrence as a ratio provides the first figure for the formula.

Different types of harm have been categorised according to their severity. For the purposes of the System there are four Classes of Harm which require medical attention and therefore are likely to be recorded. Numerical weightings have been given to each Class to reflect the degree of incapacity for each. These weightings provide the second set of numbers for the formula (Examples of each Class of Harm and the weightings for each are given in Figure 2.)

While one outcome may be the most likely, there may be other possible outcomes. For example, there may be a 60% chance of death from falling out of a 5th floor window, but a 40% chance of a less serious outcome. The last set of values for the formula is the percentage chance for each of the Classes of Harm.

A Hazard Score is the sum of the products of the Class of Harm weightings, multiplied by the likelihood ratio, multiplied by the percentage for the outcomes. An example calculation is given at Figure 3.

Class of Harm	Examples of Harm	Weighting
I Extreme	Death, permanent paralysis below the neck, malignant lung cancer, regular severe pneumonia, permanent loss of consciousness, and 80% burn injuries.	10,000
II Severe	Chronic confusion, mild strokes, regular severe fever, loss of a hand or foot, serious fractures, very serious burns and loss of consciousness for days.	1,000
III Serious	Chronic severe stress, mild heart attack, regular and persistent dermatitis, malignant but treatable skin cancer, loss of a finger, fractured skull, severe concussion, serious puncture wounds to head or body, severe burns to hands, serious strain or sprain injuries and regular and severe migraine.	300
IV Moderate	Occasional severe discomfort, chronic or regular skin irritation, benign tumours, occasional mild pneumonia, a broken finger, sprained hip, slight concussion, moderate cuts to face or body, severe bruising to body, 10% burns and regular serious coughs or colds.	10

Figure 2 – Classes of Harm with Examples and Weightings

	Class of Harm Weighting		Likelihood 1 in		Spread of Outcomes (%)		
I	10,000	÷	100	X	0	=	0
II	1,000	÷	100	X	10	=	100
III	300	÷	100	X	30	=	90
IV	10	÷	100	X	60	=	6
Hazard Score							= 196

Figure 3 – Example Calculation of a Hazard Score

2.4 Interpretation of Hazard Scores

The formula for generating a Hazard Score has been devised so that the result can be compared to an Equivalent Annual Risk of Death (see Figure 4).

Hazard Scores	Equivalent Annual Risk of Death
1	1 in 1,000,000
10	1 in 100,000
100	1 in 10,000
1,000	1 in 1,000
2,000	1 in 500
10,000	1 in 100
20,000	1 in 50
100,000	1 in 10

Figure 4 – Hazard Scores and Equivalent Annual Risk of Death

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Perception of risk is a complex area. However, work, principally by the Health and Safety Executive, has been done on what the general public perceive to be acceptable and unacceptable risks. An acceptable risk is 1 in 10,000, and an unacceptable risk is 1 in 1,000. Based on this, it can be said that Hazard Scores of 100 or less are acceptable, while Scores of 1,000 or more are unacceptable.

To make the System more manageable, the Scores have been put into ten Bands, see Figure 5.

Band	Equivalent Hazard Scores
A	5,000 or more
B	2,000 – 4,999
C	1,000 – 1,999
D	500 – 999
E	200 – 499
F	100 – 199
G	50 – 99
H	20 – 49
I	10 – 19
J	9 or less

Figure 5 – Hazard Bands and Scores

2.5 Assessing Hazards from Noise

The assessment of a dwelling for hazards from noise is a comparison of the dwelling against the ideal, that is against what is currently perceived to be adequate sound insulation. At the very least, the ideal is to satisfy the requirements of Building Regulations Approved Document E.

Matters which may be taken into account would include –

- The adequacy of construction and sound insulation between parts of the dwelling and between the dwelling and other premises;
- The adequacy of construction and sound insulation to the external structure;
- The siting of plumbing fittings and facilities; and
- The noise generated by equipment, facilities and fittings.

The first stage of the assessment is to determine the likelihood of an occurrence. This is the likelihood that a person will be exposed to noise within the next twelve months. To assist in determining this, averages have been calculated using various statistical data bases including the English House Condition Survey. The average likelihood of an occurrence in pre-1919 dwellings is currently estimated as 1 in 56, while the average for Post 1980 dwellings is estimated at 1 in 1,000.

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The second stage is to judge the spread of outcomes from an occurrence. Again, averages have been calculated to show the spread of outcomes which can be expected. These are –

Class I Harm	0%
Class II Harm	0.1%
Class III Harm	10%
Class IV Harm	89.9%

Based on these averages, typical Hazard Scores for a pre-1919 dwelling would be 71 (Band G) and for a post 1980 dwelling 4 (Band J).

It is suggested that, for noise hazards, the assessment would concentrate on the increase in the likelihood of an occurrence over the next twelve months. There would have to be good reasons for changing the average spread for the outcomes.

Where it is judged that the dwelling is worse than the average, the likelihood should be increased. For example, from the information given in the *Mills* and *Baxter* cases, it would seem that the likelihood of a harmful occurrence over the next twelve months would be almost a certainty, 1 in 1 or 1 in 2. A likelihood of 1 in 2 would give a Hazard Score of 2,000 (Band B) which is well above an unacceptable level.

2.6 Proving that a Dwelling is in such a State as to be Prejudicial to Health

The Housing Health and Safety Rating System is evidence based, using available information on the housing conditions and the effects of hazards on health and safety. On its release, it will be the approved method for assessing all health and safety risks resulting from housing conditions.

To prove that a dwelling is in such a state as to be injurious, or likely to cause injury, to health, it has to be shown that injury to health is probable, not merely possible. The Rating System provides a means of showing whether the risk of injury is acceptable or unacceptable and how likely it is that damage to health will occur.

3 The Future of the Health and Safety Rating System

As stated above, the Health and Safety Rating System is scheduled to be released this summer. It is understood that it is the intention that the Rating System will be eventually introduced in legislation to replace the current Housing Fitness Standard as the statutory method for assessing existing dwellings.

Initially, however, the System will be available as a tool, primarily for use by local authorities to inform their policies and priorities. It will also be useful to inform decisions as to whether dwellings are prejudicial to health and not reasonably suitable for occupation.

The System is to be used in parallel with the current Fitness Standard as a part of the next English House Condition Survey (scheduled for 2001). Information from this next Survey and other sources will be used to up-date and refine the evidence on which the Rating System is based.

