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THE CONSULTANT AND CONFLICTING CRITERIA IN COMMUNITY NOISE PROBLEMS

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The consultant has a basic problem of conflict; in that he has a clear duty to the client, while being expected as part of that duty to be "independent", in the sense that he has no direct involvement in the result of an investigation. Having made his report in a form that can be readily understood, he leaves his client to take the decisions which follow from it.

However, in identifying himself with his client, there is always the fear of bias in his judgement. There is thus a desire for a code of operation, particularly where there is an adversary situation.

The overwhelming majority of community noise problems, despite an adversary component, do not end in any form of court of tribunal, and it is part of the consultant's job to assist in reaching agreement between parties. It is nevertheless a wise policy to act as though all such problems are to be tried in a court. The forensic situation acts as a framework to test the arguments and conclusions which may be made in advising the client, even where the chances of a legal confrontation are negligible.

In this context, the consultant's duty to the client is to identify and investigate all features of the situation favourable to the client; identify and warn about all unfavourable features; advise as to possible action to be taken.

It is useful to ask 'What would I advise the adversary in this case if I were acting for him'. Unfortunately this is not always a reliable guide as differences between parties often arise because of the different facts available to each side.

An adversary situation is influenced by some or all of the following factors affecting a potential complainant: the sound level of an intrusive noise; its duration; its character; its timing in relation to the complainant; the background or ambient level of the

complainant's surroundings; any financial impact of the noise; interference by third parties.

The features affecting the party responsible for the noise are that interference with the complainant is not recognised; and it is not possible to reduce the noise without complete cessation, or without unacceptable expense.

Table I represents a simple analysis of the author's experience as a consultant in adversary community noise problems. In this table, the failure of a source client represents a success on the part of the complainant. The compromise situation arises where an agreement has been reached or where the complainant is only partially successful in some legal action. In the case of a complainant client, a large proportion of the undecided cases represent situations where the client has been effectively dissuaded from pressing his case by his advisers, including the consultant, and it is possible that most of these cases would otherwise have appeared as a failure.

Table 1 Results in community noise cases (%)

Client Interest	Undecided	Client Successful	Compromise Result			Client Failed
			Favours Client	Neutral	Favours Opponent	
Source	7	43	4	5	3	7
Complainant	14	10	2	-	-	-

In only 15 per cent of these cases was a consultant employed by the other party to the confrontation, but where two consultants are involved on different sides it is instructive to consider the reasons which lead to their differing opinions and advice to the clients. A parallel situation in fact appears when a consultant moves from similar cases involving source clients on one hand and complainants on the other.

In broad terms the factors which will influence the judgement of the consultant are:

1. The different circumstances of each case, as seen from the point of view of each client.
2. The different legal positions taken up by the clients.
3. The sampling errors arising because observations available are not typical, or not sufficient to provide a reasonable average.

Although the consultant needs to take account of all the factors which initiate the adversary situation, his own investigation will be limited to technical matters, in the context of that situation. This will normally involve, inter alia, the assessment of sound levels, although there are many situations in which measured values as such play only a small part in the overall assessment. The relative unimportance of measured data often leads to the view that the

subjective judgement of the situation is more important than any instrumental observations: but it is suggested that reliance on subjective judgement by the consultant can be a dangerous procedure. Subjective judgement by anyone of a noise situation is influenced by:

1. The personal experience of the individual making the judgement, particularly related to his lifestyle.
2. His understanding of the law and regulations related to the situation.
3. Identification with the needs and motives of the complainant.
4. A desire to be fair and consistant.
5. Motivation in making the judgement.
6. Financial considerations.

The first four of these factors may well apply to the consultant. Any judgements of this kind that he makes must be based on his general professional experience of such situations rather than on his own aspirations and lifestyle. The over-riding responsibility is to be consistent; and it is in this way that sound level measurements can be of great value in placing the particular situation within the context of his professional experience as a whole. In this way the use of measurements may be considerably more valuable to him than to a third party.

Where there are no clearly expressed regulated or accepted standards it is normal practice to compare source sound levels experienced by a complainant with the pre-existing background level of the immediate neighbourhood. This comparison is often more subtle than it appears as the background noise level is commonly related to significant features of the complainant's situation. So, for example, it is affected by the time of day, day of the week, time of the year, type of life-style of the complainant and his neighbours. It is thus generally related to the standards of the local community and the experience of individuals.

Except where an interfering noise is virtually continuous, a simple comparison of sound levels is not sufficient, hence there is is a need to assess the time factor among others.

British and International Standards provide guidance on this point but rely on relatively arbitrary identification of the factors. For his own judgement, the consultant may well consider an extension of the L_{eq} principle even where this is somewhat artificially extended over days or months.

The extremes that require to be accommodated are:

1 Undoubted high excesses over background noise for short and/or occasional periods.
2 a. Marginal excess levels for extended and/or regular periods.
b. Marginal excesses over a critical period or periods.

A retrospective analysis of 18 cases where a judgement is available on the basis of all the factors has been made, and is summarised in Table 2.

Table 2. Results in community noise legal cases

Final Result	Excess source level above background, (dBA)									
	Peak/L_{10}		above L_{90}			Mod. L_{eq}		above L_{90}		
Complainant Success	50*	23*	15	18	17	12*	13*	10	15	10
Neutral(Complainant)	3	15				5	5			
Neutral	6	9	15			4	2	2		
Neutral (source bias)	12	9	2	9		3	0	1	0	
Complainant failure	8	16	0	10		3	0	0	2	

The judgement of a court or tribunal is indicated in the result column while the second column records the excess of interfering noise level over background level experienced by the complainant, without correction. In column three the excesses have been corrected by allowing for the differences in duration on a total energy basis over an extended period.

The third column shows reasonable correlation between excess and result, whereas there is considerable inconsistency in the second. The extent to which originally disparate results can be shown to be similar is demonstrated in principle by referring to one pair of cases. The first of the pair involved noise from motor-cycles racing adjacent to a suburban house, producing very high excesses of noise for a few seconds several times during each race, of which there were several on one evening per week. In the second; moderately high excess levels due to motor boat racing was sustained virtually continuously over periods of several hours, extending to activity on several days per week. By taking account of the total periods in each case over the racing season, background excesses of 50 and 28 dB A respectively become 12 and 13dB A , and the cases are seen to be similar in total effect.

The general results of this technique were confirmed by examination of a large number of other cases where the information is not now readily available in sufficient detail to include in Table 2 ; and the result is regarded as surprising in view of great variety of factors involved. It has to be recognised, however, that a selection process has taken place in applying the principle, in that the "relevent" periods only are taken in account. An automatic measurement of L_{eq} would not produce the same result and would not identify the excess over the background level.

The technique cannot be extended mechanically to all situations; but does offer the consultant a method of testing his own judgement where sound levels are one of the factors taken into account.