

IN THE SOUTHAMPTON COUNTY COURT
SITTING AT WINCHESTER
BEFORE HIS HONOUR JUDGE IAIN HUGHES QC
DESIGNATED CIVIL JUDGE

CLAIM No. 5SO8402, 5SO08734

Draft delivered: 21st February 2008

Handed down: 18th March 2008

BETWEEN:

ANTHONY COFFIN

DAVID TARRANT

Claimants

- and -

FORD MOTOR COMPANY LIMITED

Defendant

JUDGMENT

Introduction

1. The issue in these two cases is the basis upon which the court should approach the question of damages in respect of the provision of hearing aids for noise induced deafness. I am told by counsel that there are a large number of stayed cases involving employees or ex-employees of the defendant where the only effective dispute between the parties relates to the claimed cost of hearing aids.
2. Both parties were represented before me by very experienced counsel: Mr Theodore Huckle for the claimant and Mr John Williams for the defendant. I am grateful to both counsel for their helpful written and oral submissions.
3. The claimants seek damages from the defendant for personal injuries and consequential loss in respect of noise induced deafness arising out of their employment at the defendant's Swathling plant, near Southampton. General damages have been agreed, with Mr Coffin to receive £4,500 and Mr Tarrant £5,000. The only special damages claimed

relate to the purchase, maintenance and insurance of hearing aids. According to a revised schedule prepared by Mr Huckle for his closing submissions, Mr Coffin seeks £10,264.70 in respect of these items and Mr Tarrant £10,339.40. It is these claims which are disputed.

Noise induced hearing loss

4. In view of the issues that have been argued it is necessary for me to set out in a little detail the technical background to these claims. Much of what follows has been taken from judgments in earlier hearing loss cases. This narrative was accepted by both of the medical experts who gave evidence before me.
5. Noise is generated by pressure variations in the air. The frequency, or pitch, at which those variations occur is expressed in cycles per second, or Hertz: Hz. Since the frequencies with which sound that is relevant to the human ear extend to several thousand Hertz, the unit of a thousand Hz or a kilohertz ("kHz") is often referred to. Noise may consist of a single frequency: pure tone. Most noise existing in one place at one time, however, is more complicated than that, and consists of simultaneous sounds at different frequencies: it is broadband sound. The doubling of the frequency of sound alters the pitch of the sound by one octave, so that 2 kHz is an octave higher than 1 kHz as is 4 kHz than 2 kHz. Middle C is 261.63 Hz.
6. The loudness of the noise depends on the sound pressure level of the energy that produces it. The sound pressure level is measured in decibels ("dB"). The decibel scale is logarithmic, so that each 3 dB increase or decrease involves a doubling or halving of the sound energy.
7. The human ear is more sensitive to noise at some frequencies than at others. For that reason a simple measurement of the overall sound pressure at one frequency is of limited usefulness. It is possible to measure the sound pressure level at different frequencies, so as to build up a picture of the quality of noise in a more useful way, typically at octave intervals or bands: as for example 500 Hz, 1 kHz, 2, 4 and 8 kHz.

8. Sound pressure level does not equate to the level of noise as it is perceived by the hearer. A hearer will not perceive double sound pressure level as involving much, if any, increasing sound. So 88 dB may not sound much louder than 85 dB, although it involves twice the energy. For the hearer to think that one sound is twice as loud as another it may be that the sound has in fact to be about 10 times louder in terms of sound pressure level: for example the jump from 80 to 90 dB.
9. Apart from very loud noise which itself is immediately damaging (and which is not relevant to these cases) consideration of the damage that a person may have suffered to his or her hearing involves not only the level of noise, but also the length of time of exposure to it, since damage by noise depends on the overall dose of noise received. The noise to which the human ear is exposed is not often constant, but fluctuates over any given period of time, as when a machine emitting noise is used intermittently. The average noise over a period of time is described as the equivalent continuous sound pressure level.
10. The outer ear funnels sound towards the eardrum, by which the vibrations in the air are converted into mechanical vibrations. Those vibrations are conveyed by the middle ear to the cochlea. The cochlea analyses the sound (for example into different frequencies); amplifies it; and translates those amplified and differentiated vibrations into nerve impulses which are transmitted to the brain by the auditory nerve, so producing the perception of sound. Hair cells in the cochlea play a vital part in this process of translation into nerve impulses. Noise induced hearing loss ("NIHL") involves a high exposure to noise which over time causes damage to the hairs which is permanent and irreversible.
11. Hearing is measured by use of an audiogram, which is a record of the threshold of hearing of pure tone sound at different frequencies. Although the results may be expressed as a chart or a table I have found charts easier to understand and I have annexed several to this judgment. If measured by air conduction, earphones are used. Measurement up to about 4 kHz may also be by bone conduction by which is measured the reaction to vibration of bones of the skull. Bone conduction testing bypasses the outer and middle ears, and attempts to measure the functioning of the cochlea directly. NIHL affecting the cochlea is

described as sensorineural. It is to be contrasted with conductive hearing loss in which there is a decline in the function of the outer or middle ear. Such conductive hearing loss is not caused by the sort of noise levels with which this case is concerned, but may be caused by disease or infection, or by excess wax, or by very loud traumatic noise, or other causes. Audiometry requires co-operation, effort and reliability in the person being tested. The measurement of hearing therefore involves techniques to assess consistency, but there is always a significant margin of possible error. I was told that the accepted margin of error is of the order of 10dB.

12. The main frequencies important to speech are 500 Hz to 4 kHz, though loss at 6 kHz has significance for high toned noise, for instance music or birdsong. As hearing thresholds increase (i.e the hearing is impaired) the ability to interpret speech is progressively disabled.
13. Threshold increases in the higher frequencies in that range tend to affect discrimination of consonants or sibilants and fricatives, and so may make speech indistinct without appearing to affect the overall loudness of the sound. Threshold increases in the lower frequencies are associated with the identification of vowels.
14. The risk of NIHL is assessed by reference to statistics applicable to different populations of people. The susceptibility of any individual to such loss is very variable and cannot be predicted, although serial audiometric examinations of the same person at regular intervals may pick up early signs of a decline in threshold levels and so suggest particular vulnerability. In addition to the variability in reaction to noise, the hearing of any person will deteriorate with age. Children and young people have hearing at higher frequencies than the usual scale up to 8 kHz measured by audiometry. Progressively, however, the threshold levels in those higher frequencies rises, and from the middle years of life that loss moves into lower frequencies and affects the frequencies in the conventional audiometric range of 8 kHz and below, including speech frequencies. This hearing loss associated with ageing, known as presbycusis, is also very variable as between individuals, and in an unpredictable way, though to some extent the pattern of loss

through ageing may provide some information about how susceptible an individual is to presbycusis.

15. It follows that two important ingredients for assessing the level of disability caused by noise; the susceptibility of the individual to damage, and the rate at which that individuals hearing thresholds would in any event decline with age, cannot be predicted.
16. The central tool in diagnosis is the audiogram. Audiograms are taken in steps of 5 dB at each frequency. They are variable and not generally exactly repeatable. Where two audiograms taken at about the same time vary, the results where there is variation may reasonably be averaged if the difference is not more than 10 dB. Up to 10 dB is therefore an acceptable margin of error. Where the difference is greater, some explanation has to be sought from the history or the nature of the audiograms, and one preferred to the other, or the process may be repeated.
17. The effect of NIHL interacts over time with the effect of presbycusis. NIHL increases faster in the early years of exposure, and then the rate of loss tails off. When the noise is stopped, the development of the NIHL also stops, though the damage suffered remains. Presbycusis develops slowly at first, and then from the middle years onwards accelerates. Up to the point where loss through age attains about 40 dB the effects of NIHL and presbycusis are broadly additive in their contribution to permanent threshold shift. In later years the effects of NIHL, especially small amounts of it, can be subsumed by advancing presbycusis.
18. In addition to ageing many people suffer hearing loss for other reasons which may or may not be explicable. There may be middle ear disease, such as otitis media, or sensorineural loss caused by other disease, such as Meniere's disease. Certain drugs are ototoxic; smoking and other lifestyle habits may lead to hearing loss. In addition to causes that may be identified, many people have a degree of hearing loss for which the explanation cannot be found.

19. Dr Yeoh said in evidence that when all the other explanations had been accounted for about 50 per cent to 70 per cent of cases remain with some unexplained, or idiopathic, hearing loss. Often, therefore, the doctor diagnosing hearing loss is not dealing with two possible elements of loss; age and noise, but also a third, the cause of which may not be identifiable. The presence of such a third cause may readily be seen in asymmetry in the audiograms between one ear and the other, because in general presbycusis and NIHL affect the ears more or less equally and so result in broadly symmetrical audiograms. Although a history of adequate noise exposure is necessary for the diagnosis of NIHL such exposure in the range that these cases concern, does not prove the cause of the loss. The greater the noise exposure the more it can be used as a tool that may help diagnosis.

The course of the trial

20. When this case came before me on 17th August 2007 for directions I was told that the only substantive issue between the parties was the question of acceleration: could the claimants prove that NIHL had accelerated their need for hearing aids and if so by how long? Given the need to hear expert evidence on that issue I increased the time estimate for the trial and allowed three days for evidence, one for pre-reading and one for closing submissions. Both counsel agreed with this revised five day trial time estimate. This time estimate was confirmed during a subsequent telephone directions hearing on 2nd October.
21. In the event the trial took ten days. One day was taken up by pre-reading, followed by seven days of evidence and two days for closing submissions. The reason for this startling increase was twofold. First, the pre-trial agreements between both sets of experts fell apart under the weight of new reports and late revised positions on the part of the claimants' two experts. This in turn necessitated extended examination in chief and cross-examination. I have more to say about this in due course.
22. Secondly, both parties sought to use this trial as a test case in which the court would be invited to make findings as to the use of statistical data and novel methodology when assessing, quantifying and valuing NIHL. However, neither party proposed to put before me any evidence from those who created, revised or modified the various data tables, nor

from any statistician nor from any epidemiologist, nor from an expert with the standing to comment with authority on what was proposed.

23. Instead, the existing medical experts, neither of whom had originally been retained for this purpose, were to be examined and cross-examined by experienced counsel and the arguments and technical literature were introduced into evidence in that fashion. For reasons that will become apparent I do not consider this method of litigating to be appropriate for a test case or for a case intended to establish a practical precedent.
24. For example, the audiological evidence in the case and the methodology of Mr Carruth, (the claimant's expert doctor) were illustrated by some 24 colour charts and tables, all prepared by Mr Huckle rather than Mr Carruth. None of these were disclosed prior to the hearing and they were first introduced into the case when they were shown to Mr Carruth during his evidence in chief. Some of the charts were indeed useful but I would have expected such material to have formed part of the expert's evidence, disclosed well in advance of the hearing and discussed at the joint meeting of experts, rather than be prepared and spoon fed by counsel to his own expert witness.
25. The case also involved both sides doing their best to introduce the hearsay opinions of an expert who might have resolved the important issues, namely Professor Coles, one of the authors of the Guidelines (see below), but without actually introducing any coherent evidence from him at all. Dr Yeoh tried to introduce snippets of a pre-trial telephone conversation he had had with Professor Coles and Mr Huckle tried to introduce snippets of a different telephone conversation Mr Carruth had had with Professor Coles during the case. Mr Huckle also referred to the fact that the defendants had an undisclosed report from Professor Lutman, another of the authors of the Guidelines, doubtless hoping I would infer that Professor Lutman could not have supported the defendant's stance as they did not call him. This works both ways and there was nothing to stop the claimants calling Professor Lutman on the usual basis. They did not do so either. I have given no weight to any of this tactical manoeuvring and none of this has affected my decision.

26. At the conclusion of the evidence I asked counsel to agree on a list of issues for determination by me. This was intended to ensure that both counsel addressed the same issues in their closing submissions. Unfortunately counsel were unable to agree and I had detailed, but in some respects different, issues from each side.

Exposure to noise whilst at work

27. Mr Williams accepted that each claimant had been exposed to excessive levels of noise whilst working at the defendant's Swathling plant. A breach of duty was admitted, as was the consequence that each claimant had suffered some NIHL in respect of which compensation was due.
28. The degree and duration of such tortious exposure has not been admitted. Mr Coffin told me that although some of the work he did at the plant was not particularly noisy, on other occasions he would work with noisy machinery and that the factory was generally noisy.
29. Mr Tarrant worked as a fork lift truck driver, feeding the production line. As a result he was regularly exposed to the same level of noise as those working on the line. In addition, his truck was noisy.
30. The defendant called no evidence to contradict what the claimants told me in their written and oral evidence about their exposure to noise whilst at work. I accept their evidence on this issue.
31. Apart from their NIHL, the health of both claimants is unremarkable for present purposes.

The Guidelines

32. In 2000 Professors Coles, Lutman and Buffin published a paper in Clinical Otolaryngology entitled "Guidelines on the diagnosis of noise-induced hearing loss for medico legal purposes" ("the Guidelines"). The express purpose of the Guidelines was to assist expert medical witnesses in considering evidence for the diagnosis of NIHL in medico legal settings. The authors state that the Guidelines:

“do not relate to hearing loss due to acute acoustic trauma, nor to noises having unusual frequency spectra *nor do they quantify how much of any hearing impairment is due to noise*” (emphasis added).

33. In their general remarks the authors state that the Guidelines are a matter of judgment and that they should be interpreted as guides and not rigid rules. However, the authors state that the guidelines have been derived after careful consideration of the data available and keeping in mind the civil standard of proof.
34. The authors argue that the amount of NIHL needed to qualify for that diagnosis is that which is reliably measurable and identifiable on an audiogram. The three main requirements for the diagnosis of NIHL are stated to be:
 - a. High frequency hearing impairment;
 - b. Potentially hazardous amount of noise exposure;
 - c. Identifiable high-frequency audiometric notch or bulge.
35. The authors also discuss several modifying factors that I need not detail here. The third requirement, or notch, is in simple terms characterised by an impairment at 4 kHz (or possibly 6 kHz) of at least 10 dB followed by a recovery. This is illustrated in Figure 1 in the guidelines.
36. Table 2 of the Guidelines sets out typical age-associated hearing loss (“AAHL”) for men, modified by the authors from International Standard 7029 (“ISO 7029”). This data is used in the calculation intended to provide guidance as to whether a patient has NIHL or not.
37. Table 4 provides a worked example of the calculation for the identification of possible presence of NIHL. There are eight stages to the calculation:
 - a. The hearing threshold levels (“HTL”) are measured, and if necessary corrected for the use of a certain type of audiometer earphones, at a range of audiometric frequencies;

- b. The corrected HTL at the two anchor points are identified, the authors suggesting 1 kHz and 8 kHz as appropriate anchor points;
 - c. Appropriate AAHL statistics from Table 2 are identified for age and sex. The figures that correspond best to the values at the two anchor points are chosen. The data provides a choice of figures for each age: lower, median and upper quartile. The selected figures are for the six frequencies from and including the two anchor points. The same percentile is used across the frequencies for each ear but the two ears may have different percentiles in order better to match the anchor points.
 - d. The misfit values for the two anchor points are calculated. This is the difference between the statistical values selected and the measured HTL at the two anchor points (b minus c);
 - e. Interpolate misfit values (the product at d) for the frequencies measured between the anchor points;
 - f. The adjusted AAHL values are calculated (c plus d and e);
 - g. An audiometric bulge, if any, may then be demonstrated (a minus f).
38. The hearing data used by the authors for the purposes of the worked example at Table 4 is plotted on the charts at Figure 3. On the data so selected, the right ear demonstrates an obvious and, the authors argue, characteristic notch or bulge between the two anchor point frequencies, permitting a diagnosis of both NIHL and AAHL for that ear.
39. The charts at Figure 3 were helpfully reproduced by Mr Huckle in the manner I have mentioned and I annexe copies to this judgment, the right ear example being appendix one and the left ear example being appendix two. The “bulge” for diagnostic purposes may clearly be seen on appendix one.
40. A deterioration in the ability to hear higher frequencies is a well recognised consequence of ageing. It is also a well recognised consequence of noise damage. The Guidelines are an attempt to provide a reliable test to enable a diagnosis of NIHL to be made where there is a loss of hearing at the higher frequencies.

41. It is important to note that the authors do not attempt to quantify the extent of the NIHL so diagnosed. Nor do they attempt to apportion the overall hearing loss between noise and age. To attempt either would be to contradict the express limitation they have set on the use of the Guidelines to which I have already drawn attention. Instead the authors were attempting to see if one can identify the notch after applying a theoretical degree of AAHL extracted from a selected database. It is theoretical because it is not possible to be precise about how much hearing loss is due to age for any particular individual.

Mr Carruth's methods of quantifying the degree of acceleration of NIHL

42. Mr Carruth relied on two methods to calculate the period of time by which the claimants' need for hearing aids had been accelerated by NIHL. As explained by Mr Huckle, each is essentially a comparison of the hearing levels of each claimant with the data set out in Table 2 of the Guidelines, that is for non-noise exposed populations.
43. The first method started with the Guidelines and the methodology described in that paper for diagnosing NIHL. Mr Carruth applied the Table 4 calculation to stage f thereby producing figures for each claimant's adjusted AAHL at age 50 years at what he described as the "key noise sensitive frequencies" of 3 kHz, 4 kHz and 6 kHz. This, he said, calculated the probable worst levels of hearing across the selected frequencies. Mr Carruth then compared these figures with the measured (and worse) HTL at the same key frequencies and determined that the difference between the two represented an advancement of need measured in years.
44. The second method does not use the Guidelines but instead compares each claimant's hearing at the relevant frequencies with like centile data distributions for age, in order to assess how much older the hearing is at the individual frequencies than would have been expected absent exposure to noise. Once again Mr Carruth uses ISO 7029 data.
45. Mr Carruth told me in respect of his first method:

“it is certainly something that ... as Mr Yeoh points out, it hasn’t been used in this way before. It is a novel approach although it is using actual standard tables and calculations.”

46. Mr Huckle represented both methods on a series of graphs, the better to illustrate the steps taken by Mr Carruth to arrive at his conclusions.

The development of Mr Carruth’s evidence on acceleration of hearing loss

47. In his initial reports, 12th May 2004 for Mr Tarrant and 21st September 2005 for Mr Coffin, Mr Carruth wrote as follows in respect of each claimant:

“This man is significantly deafer than he should be at his age and in the absence of other noise exposure, one can state that his ‘additional high tone hearing loss’ has been caused by exposure to noise at work. The prognosis is that his hearing will continue to deteriorate with age and further exposure to noise and the only treatment available would be a hearing aid.”

48. There was no attempt by Mr Carruth in these reports to quantify the extent to which the hearing loss was attributable to noise rather than age, nor was there any mention of the period of time by which such hearing loss had been accelerated by reason of noise damage to the hearing.
49. In due course Dr Yeoh prepared reports on both claimants and joint discussions took place between the two experts.
50. The first discussion was on 30th May 2007 and concerned Mr Coffin. There was a large measure of agreement: not all of Mr Coffin’s hearing loss was due to noise; Mr Coffin suffered hearing loss by reason of his employment with the defendant; the hearing loss between 1987 and 2006 was caused by a combination of noise damage, ageing and socio-economic factors; whether or not Mr Coffin would benefit from a digital hearing aid was a matter for the registered hearing aid dispensers; it was probable that, in time, Mr Coffin would have required a hearing aid in any event because of a deterioration in hearing levels

due to ageing and it was not possible to predict when that would have been, because there was no method to predict the speed and extent of hearing loss from ageing process and from other factors in the future. This latter part of their agreement is set out at paragraph 8(ii) of the joint statement.

51. The only area of disagreement was Mr Carruth's statement that "the need for a hearing aid system had been accelerated by the additional NIHL by approximately 10 years." The record of the discussion was made by Dr Yeoh, submitted to Mr Carruth and signed by both doctors on 30th May.
52. The second discussion was on 4th June and concerned Mr Tarrant. The same conclusions were reached and recorded. Once again Mr Carruth stated that "the claimant's need for a hearing aid has been advanced by at least ten years approximately." Dr Yeoh did not agree. As with Mr Coffin's case, Mr Carruth went on to agree with the apparently contradictory statement at paragraph 8(ii) to the effect that it was not possible to predict when Mr Tarrant would have needed a hearing aid in any event. Mr Carruth signed that statement on 21st June.
53. In evidence, Mr Carruth told me that for the purposes of these meetings he had arrived at "approximately ten years" properly and carefully but that he no longer had the calculations he had made. However he thought they were largely based on the methods he had subsequently explained in detail and in particular, the first method based on the Guidelines.
54. On 31st July Mr Carruth provided further reports on Mr Coffin and Mr Tarrant, in the form of answers to questions. In these reports Mr Carruth was asked to set out the basis for his conclusion that it was possible to determine the period of acceleration brought about by NIHL and that in each case, the period of advancement was "approximately 10 years". Mr Carruth identified three methods of calculation, but rejected the third as imprecise. No reliance has been placed on the third method and I ignore it for present purposes.

55. For Mr Coffin, Mr Carruth's first method produced a calculation for the left ear resulting in 10 years advancement; the second method 9.67 years, an average for the two methods of 9.83 years. For the right ear, the first method produced an advancement of 15 years, the second method 17.17 years, an average of 16.10 years.
56. For Mr Tarrant, the first method produced a calculation for the left ear resulting in 20 years advancement; the second method 16.33 years, an average for the two methods of 18.17 years. For the right ear, the first method produced an advancement of 10 years, the second method 7 years, an average of 8.5 years.
57. Some arithmetical errors were made by Mr Carruth in his report. These were identified and corrected by Mr Huckle and I have quoted the corrected figures above.
58. It was the apparent discrepancy between Mr Carruth's stated position on "approximately 10 years advancement" and his agreement with the proposition at paragraphs 8(ii) of the joint reports that led me on 17th August 2007 to direct further reports, limited to explaining the respective positions of the experts on this issue.
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59. It was those two methods of calculating the acceleration of hearing loss and the figures they generated, that formed the basis of the claimant's case at trial.

The claimants' hearing

60. Both claimants gave oral evidence. Whilst both claimants have hearing impairments that may be demonstrated by means of an audiogram, neither claimant is profoundly deaf. Both were able to hear the court proceedings without difficulty and without hearing aids. No special measures were necessary when they came to give evidence. Neither claimant has any problem with normal conversation. The hearing loss is confined to 3 kHz and the higher frequencies. These affect the perception of sibilants and fricatives such as "f", "s" and "th" words. The claimants told me that this loss manifests itself as a difficulty in hearing conversations in a noisy environment, such as social occasions, or when there is competing noise, for example from a television.

61. Mr Anthony Coffin is now 52 years old and started working for the defendant in 1987. Shortly after he started work he had an audiogram. This has been of assistance in determining the extent to which his hearing has deteriorated during his time working for the defendant. Although Mr Coffin describes all of his work as noisy he told me he did not wear hearing protection until 2005. In that year he had another hearing test at work and was found to have a significant hearing loss. After referral to his own doctor he asked for and was given hearing protection whilst at work.
62. Mr Coffin was referred on to Mr T. E. Mitchell, an ENT surgeon at the Royal South Hampshire Hospital. On 2nd June 2005 Mr Mitchell reported:
- “Pure tone audiometry shows him to have just a mild dip in the high frequencies which is slightly worse in the left. Certainly a hearing aid is unlikely to help him, at present. I have stressed the importance of wearing ear defenders when in a noisy environment. I have not arranged to see him again routinely.”
63. There was some attempt by Mr Huckle and Mr Carruth to suggest that budgetary and/or targets and/or waiting list considerations rather than strict clinical need influenced Mr Mitchell when he declined to recommend a hearing aid for Mr Coffin. I reject that argument. Mr Mitchell was not a witness and in the absence of compelling evidence I am not prepared to find that he would allow such irrelevant considerations to cloud and distort his clinical judgment.
64. The clinical opinion of Mr Mitchell in 2005 that Mr Coffin would not be helped by a hearing aid makes the case put forward on behalf of Mr Coffin in 2007 that he requires aids in both ears more difficult to sustain.
65. For his part, Mr Coffin told me that he accepted Mr Mitchell’s opinion and that he had not sought further advice from his own doctor about hearing aids. However in early 2007 Mr Coffin was offered and used a pair of digital hearing aids for a week. This was arranged by Mr Munn, the claimants’ hearing aid audiologist. The aids were not used at work but Mr

Coffin said he wore them all the time at home and when he was out socially. He said they were “brilliant, fantastic.” He found himself able to join in conversations and to hear what others were saying in social environments. Mr Coffin told me that the aids were so discreet that his daughter did not notice that he was wearing them. He said that as a result of the test he would use an award of damages to buy a pair of hearing aids for himself.

66. I do not believe that Mr Coffin came to court to mislead me about the benefit he obtained from the trial of the hearing aids and I accept his evidence in that respect.
67. One of Mr Coffin’s pastimes is clay pigeon shooting and he has enjoyed the sport for more than 20 years, albeit at irregular intervals. He told me he always wears in-ear hearing protection when he shoots. Mr Coffin is a right handed shot so his left ear would be nearest the muzzle of his shotgun.
68. The entrance audiogram made in 1987 reveals a significant difference between Mr Coffin’s ears. The right ear has good hearing: Mr Coffin is above the median at 500 Hz and on or above the 75th centile for all the higher frequencies. In particular there is no loss of hearing at or about 6 kHz. I annexe Mr Huckle’s chart of this audiogram as appendix three.
69. In contrast the left ear audiogram shows median readings only until 6 kHz where there is a significant drop to well below the 25th centile before something of a recovery at 8 kHz. The recovery is only to below the median. I annexe Mr Huckle’s chart of this audiogram as appendix four.
70. Mr Ormerod, a hearing aid audiologist instructed by the defendant, who also has a business making bespoke hearing protectors for shooting, told me that the in-ear protectors that Mr Coffin said he had been using were not particularly effective. I accept this evidence.
71. Dr Yeoh ascribed the hearing loss at and about 6 kHz in the left ear in 1987 to shooting. Mr Carruth agreed albeit with hesitation, doubts and qualifications. Mr Ormerod

considered there was hearing loss due to shooting, albeit at a lower frequency. I find as a fact that Mr Coffin's hearing in his left ear was damaged by noise from shooting before he started work with the defendant. Shooting however cannot account for all the NIHL in Mr Coffin's left ear and there is no evidence that it has affected his right ear at all.

72. It is possible to see some left ear deterioration at 6 kHz since the entrance audiogram. Depending on the audiogram selected, the reduction in hearing levels is between 5 and 20 dB. The left ear audiograms clearly show a deterioration in hearing levels at 3 and 4 kHz as well. This deterioration is markedly below the median curve. I annexe Mr Huckle's composite chart of Mr Coffin's left ear audiograms as appendix five.
73. In Mr Coffin's right ear all the recent audiograms show there to be a significant deterioration below the median curve at around 3, 4 and 6 kHz. I annexe Mr Huckle's composite chart of Mr Coffin's right ear audiograms as appendix six.
74. It is agreed (and the application of the Guidelines makes it apparent) that Mr Coffin suffers from NIHL in both ears and it is further agreed that the defendants are liable for that damage to his hearing. Although shooting will have had some adverse effect on his hearing it is only to one ear and is largely confined to one frequency in that ear. I am satisfied that absent the consequence of noise from shooting, Mr Coffin would still require a hearing aid in his left ear because of the hearing loss caused by noise at work.
75. Mr David Tarrant is now 63 years old. He started working for the defendant in 1966 and describes his work as noisy. For the past eleven years or so he has been a fork lift truck driver. He has not consulted his own doctor about his hearing as he did not know he had a problem and the only person he has annoyed with his hearing problem has been his wife. Mr Tarrant told me that he can hear perfectly well at normal volumes.
76. There are three audiograms for Mr Tarrant, one by Mr Carruth in 2004, one by Mr Yeoh in 2006 and one by Mr Munn in 2007. Broadly speaking, they are all similar. The variations between them are within the 10 dB margin of error.

77. For the right ear Mr Tarrant's hearing is generally around the median curve. With variations depending on the audiogram and the frequency it is a little above, or below, or on the median curve at the lower frequencies. There is a drop at 4 kHz but this is from a point almost at the 75th centile at 2 and 3 kHz and the lowest readings at 4 kHz are between the median and 25th centile. There is then a marked recovery to about or even above the 75th centile. Mr Tarrant has understandably regarded this as his "good" ear. I annexe Mr Huckle's composite chart of Mr Tarrant's right ear audiograms as appendix seven.
78. By contrast, the left ear shows significantly lower threshold hearing levels. For the lower frequencies Mr Tarrant's hearing is at or about the 25th centile only reaching the 75th centile at 2 kHz. There is then a pronounced reduction at 3 kHz (to below the 25th centile), little or no recovery at 4 kHz (around the 25th centile), at 6 kHz the hearing is only on the median and finally at 8 kHz Mr Tarrant's hearing recovers to just above the 75th centile. I annexe Mr Huckle's composite chart of Mr Tarrant's right ear audiograms as appendix eight.
79. Mr Tarrant acknowledged that his hearing in his left ear is worse than that in the right. In 2007 Mr Munn offered Mr Tarrant the opportunity to try hearing aids for himself. Mr Munn wrote:
- "As Mr Tarrant was unwilling to have a pair of instruments at this time it was agreed that he would trial a single instrument in his left ear."
80. Mr Tarrant told me in evidence that "Mr Munn said he didn't think I needed an aid in my right ear, only my left." He went on to say that he wanted to have one hearing aid but if he needed two, then he would wear two. Mr Tarrant was asked to explain how his schedule of loss claimed for two hearing aids. Mr Tarrant told me that his solicitor said that although he did not need an aid in the right ear at present, he would probably need one later on so he may as well claim for two now.

81. Mr Tarrant was perfectly straightforward about this matter. He said that if he was awarded compensation and had the money to buy an aid he would go out and buy one. So far as the right ear was concerned “I don’t know until it gets to that stage” which I interpreted as an indication that he was not inclined to wear an aid in his right ear unless and until the hearing in that ear deteriorated to the present level in the left ear.
82. ~~I am satisfied that the full compensation principle does not require Mr Tarrant to be provided with the cost of a hearing aid for his right ear.~~ All the evidence makes it clear that he would not buy one for that ear, nor would he wear one if provided. Mr Tarrant has concluded that he does not reasonably require an aid for his right ear. When they reached their agreement Mr Munn and Mr Ormerod agreed that Mr Tarrant did not need and aid for his right ear.
83. In Mr Munn’s first report in May 2004 he stated that Mr Tarrant would benefit from an aid in both ears. Mr Ormerod reported in March 2007 and concluded that although Mr Tarrant might get some benefit wearing an aid in his left ear:
- “I do not believe he would receive sufficient benefit to justify a hearing aid in his right ear.”
84. In June 2007 Mr Munn and Mr Ormerod discussed Mr Tarrant’s position and the two experts came to the following agreement:
- “We consider that Mr Tarrant will receive very little benefit in the right ear due to the very marginal hearing loss. He should therefore only be considered for a monaural fitting in the left ear.”
85. That agreement was not the end of the matter. In October, shortly before the start of the trial, Mr Munn was asked by the claimants’ solicitors to write a letter, ostensibly to provide an update on the current prices for particular hearing aids. I am satisfied that this was also intended as a convenient method by which Mr Munn might resile from his agreement with Mr Ormerod and by which claims for more expensive hearing aids and for two aids for Mr Tarrant might be advanced.

86. On 24th October Mr Munn wrote:

“Even in the case of Mr Tarrant, newer technology from GN Resound and Siemens as well as others would lead me to believe that he could now be provided with a binaural fitting and to expect even further improvements in his speech discrimination. The cost of the newer instruments in this case would be in the price range of £1,795 to £1,995.”

87. When Mr Munn came to give evidence it became apparent that he was trying to resile from the joint agreement. However, he seemed to me to be uncomfortable with the position in which he found himself:

“I was coerced into making an agreement. No, I entered into it freely but it was for the expediency of making the agreement. I was about to depart on holiday the next day. The technology for hearing aids had developed in the two months between our joint statement and this letter”.

88. Mr Munn was pressed on this change of mind during cross-examination:

“It is true that I had only trialed Mr Tarrant with a monaural aid, but I thought it was likely he would require two instruments to maximise his hearing ability. However, I agreed with Mr Ormerod that Mr Tarrant needed only one aid as there was some dispute arising out of Mr Yeoh’s opinion of the audiogram. I did agree with the joint statement and I signed it. I have to stand by what I signed, however I do reserve the right to state that Mr Tarrant would benefit from the knowledge gained during his monaural trial and that he would gain additional benefit from a second instrument. I think it would be significant to him in the areas of difficulty that he experiences, or he and his family experiences. ...

‘Coerced into making the agreement’ may be the wrong words. I remember discussing that binaural aids would be most appropriate but there was a question of Dr Yeoh’s response and Mr Ormerod’s opinion and I agreed to defer. One aid is better than none, two aids are better than one. ... My opinion has always been that Mr Tarrant would benefit from two hearing aids. My 2005 report was that Mr

Tarrant would benefit from two instruments. That has not changed. It has changed from the joint statement, but my opinion has never changed that he would benefit from two aids. Better technology has reinforced that. I do not believe I was lent on to change my opinion, but to re-state my original opinion.”

89. I found this part of Mr Munn’s evidence unconvincing. By contrast Mr Ormerod gave clear and consistent evidence on this topic:

“My conclusions in respect of Mr Tarrant’s right ear were similar to those of Mr Munn and Dr Yeoh, namely there was demonstrated a marginal hearing loss by way of a small dip at 4kHz on 40 dB at that and only that frequency. That loss does not require an aid and to all intents and purposes is normal hearing. All three audiograms were consistent. The loss is too small and putting an aid into that ear may well affect his normal hearing. There will be some occlusion effect even with an open ear fitting which attempts to preserve the natural hearing as much as possible. That remains my view. ... I heard Mr Munn say that in recent months hearing aid technology has moved on and caused him to revise his opinion. That is not my view. There has been no radical change or development in hearing aid technology in the last 12 months.”

90. I reject the claim for a hearing aid in respect of Mr Tarrant’s right ear. In fairness to Mr Tarrant, he himself does not really advance the same although like most people, if offered free money, he would not refuse. But it is a credit to him as a witness that he declined unambiguously to endorse what was being advanced on his behalf. I find that the true position of the hearing aid audiologists on this issue was that recorded in their joint statement. I reject the later position adopted by Mr Munn as tainted by unexplained inconsistency. I reject the excuses he advanced of lack of time when agreeing the joint statement and advances in technology between the date of the joint statement and the letter. Mr Munn had sufficient time to consider the proposed joint statement properly and I am satisfied there were no significant advances in technology over the period in question and the excuse was lame.

91. It follows that I find that Mr Coffin has proved that he reasonably requires hearing aids for both ears and that I should take no account of the effect of shooting on Mr Coffin's hearing, as the same is very limited in effect and cannot sensibly be quantified. I am satisfied that Mr Coffin's need for aids has been caused by the defendant's admitted breach of duty.
92. I find that Mr Tarrant has proved that he reasonably requires a hearing aid for his left ear and that such a need has been caused by the defendant's admitted breach of duty. It has not been proved that Mr Tarrant reasonably requires a hearing aid for his right ear and I reject that claim.
93. Finally, I think it improbable that the claimants will wear hearing aids all the time. I find that they will happily limit their use to social and family occasions when problems with high-frequency hearing loss are most likely to be troublesome. What they require is an aid that will be reasonably satisfactory for that restricted purpose.

The expert medical evidence

94. The greater part of the trial was taken up with the primary case advanced on behalf of the claimants, namely that they were entitled to an award of special damages for the provision of hearing aids calculated on a multiplier/multiplicand basis.
95. In order to set out a coherent multiplier/multiplicand calculation it was necessary for the claimants to establish the period by which the proven need for hearing aids had been brought forward by reason of the tortious exposure to hazardous noise admitted by the defendant. In simplistic terms, the calculation of the period of advancement involved a comparison of each claimant's actual hearing levels with certain age related data.
96. This in turn involved a number of sub-questions. Which is the appropriate comparator database against which that comparison should be made: the ISO 7029 as set out in the modified form in the Guidelines or the Medical Research Council paper by Davis in 1994? Which hearing frequencies or frequency range should be considered in these two cases?

How should the comparison be made, and in particular are either or both of the two methods proposed by Mr Carruth appropriate in the present case?

97. For convenience I refer to all this as the calculation of the period of advancement.
98. The claimants' case depends on my assessment of the evidence of the only medical expert they relied upon, Mr Carruth.
99. Mr John Carruth is an ENT surgeon who retired from the NHS some five years ago. He has a PhD and is a Fellow of the Royal College of Surgeons in England. When in practice Mr Carruth undertook general ENT work. He never practised as an audiological physician. The majority of his work was in areas other than hearing loss.
100. Mr Carruth is not a statistician nor is he an epidemiologist. He has not conducted research nor has he published on any topic relating to occupational deafness.
101. Mr Carruth has been undertaking medico-legal work for some 15 years, including a large volume of noise related hearing loss cases. Mr Carruth told me that virtually all his noise related hearing loss work was for claimants and that he had done no more than a handful of cases for defendants.
102. I did not find Mr Carruth to be an impressive witness and I was unpersuaded by his evidence on the contentious issues. My reasons are these.
103. First, Mr Carruth's qualifications and experience. By his own admission Mr Carruth was advancing a novel theory. It was not one he had suggested before nor, to the best of his knowledge, had anyone else. The theory had not been published by him or anyone else. In such circumstances I would have expected the novel propositions relied upon to calculate the period of advancement to be made by someone with appropriate qualifications and experience.

104. Mr Carruth was qualified to give expert evidence relating to his field of practice, namely the work of an ENT surgeon. As part of that work involved hearing loss he was qualified to give his opinion as to the condition, cause, prognosis and treatment of the claimants' hearing loss. However there was nothing in Mr Carruth's qualifications or experience that invested him with the authority to rework the Guidelines and to put forward a novel and untested theory of how the period of advancement might be calculated. The fact that he was prepared to do so must cast some doubt on the extent of his objectivity in these cases.
105. Second, the manner in which he gave evidence. Putting it bluntly, Mr Huckle did a better job of explaining these novel propositions than did Mr Carruth, who presented as anxious, defensive and argumentative. I detected nothing authoritative about the manner in which Mr Carruth gave evidence on this topic and he did not inspire confidence in me that his methodology was reliable.
106. A number of errors and omissions from Mr Carruth's reports were identified during cross-examination and even in Mr Huckle's final submissions. Mr Carruth attempted to excuse those that were pointed out to him by telling me they were "loose wording" and "it slipped my notice" and "it was a careless omission". Mr Carruth confessed to no longer having the calculations that supported his initial opinion of "approximately ten years". I found all this unimpressive and it sapped my confidence in Mr Carruth as an expert on whose views I could rely.
107. Third, the content of his expert reports. I regard the history of the development of Mr Carruth's opinion in respect of the period of advancement as lacking both clarity and consistency. I have set out this history above, and here I summarise my concerns. In his initial reports on both claimants Mr Carruth expressed no opinion at all as to the period of advancement. In both joint statements Mr Carruth expressed the opinion that the period of advancement was "approximately 10 years". In doing so Mr Carruth gave no explanation as to how or why he had reached this conclusion, despite the fact that he knew Mr Yeoh did not agree with him.

108. It was not until questions were put to the experts that Mr Carruth first put forward his two methods for calculating the period of advancement and set out his workings. The results do not support even a broad conclusion that the period was “approximately 10 years”, with Mr Coffin’s average figures being 9.83 and 16.10 years and Mr Tarrant’s 18.17 and 8.5 years. It did Mr Carruth little credit when cross-examined on this to try and assert that his detailed calculations in fact supported his first approximation. Mr Carruth found himself in this position because he was unable to produce the notes of the calculations he said he made when he wrote his first reports. Given his experience as an expert witness I found this surprising.
109. When pressed by Mr Williams, Mr Carruth said that with hindsight, he would have phrased things differently but continued to assert:
- “It is more than, or at least ten years, but not so vastly different than I believed to be significant”
110. This answer was despite the fact that the calculations produced a figure in excess of 16 years for Mr Coffin’s right ear, a 60 per cent increase on ten years and in excess of 18 years for Mr Tarrant’s left ear. Eventually Mr Carruth was forced to accept that the figures were indeed different. I might have found Mr Carruth’s evidence somewhat more persuasive if he had told me that his initial view of about ten years advancement was simply an educated estimate based on his knowledge and experience and that the subsequent figures were based on the calculations he had set out in his answers to questions. Instead Mr Carruth insisted that the ten years came from a method one calculation, the workings of which he no longer had.
111. I also note that Mr Carruth failed to mention in any of his reports the fact that Mr Coffin had recently been referred to an ENT surgeon in respect of hearing loss. This was plainly a material part of Mr Coffin’s medical history and Mr Carruth’s omission of the same was surprising.

112. Fourth, I am concerned at the content of parts of the joint statement and Mr Carruth's conduct in respect of it. Before the joint discussions each expert was asked whether each claimant was ever likely to have required a hearing aid in any event and if so, when. Mr Carruth agreed with Dr Yeoh in paragraph 8(ii) that:

"it is more probable than not that, with the passage of time, the claimant would probably have required a hearing aid due to presbycusis. We are not able to predict when this will occur because there is no method that we are aware of in order to predict the speed and extent of hearing loss from ageing process and from other factors in the future."

113. This agreed statement was plainly contradicted by Mr Carruth's later answers to questions when he set out his two methods of calculating the period of advancement. During examination in chief Mr Carruth told me:

"I think we both got it wrong. It was put in, I'm not quite sure, I won't blame Dr Yeoh for it, but he does the reports, types them out, but I think we were both incorrect to sign that paragraph. And I would say that it is not correct. ... the point you can't distinguish and determine is exactly when an individual will require a hearing aid."

114. By this answer Mr Carruth sought to deflect criticism from his apparent change of mind by asserting that the error was a joint one and by hinting (whilst expressly rejecting the idea) that because Dr Yeoh prepared the document he was in some way to blame. Not surprisingly Mr Williams pressed Mr Carruth on what was either a careless and surprising error on his part or else a fundamental change of mind.

115. Mr Carruth then told me that:

"The paragraph had slipped my notice, or the significance of it but I said earlier we are both incorrect ... I should have spotted that paragraph. I should have spotted that it contradicted what I said, but I believe that it meant to say, you cannot predict when an individual would require a hearing aid, following the normal progression of hearing loss through ageing."

116. Mr Carruth explained the fact that he took no steps until the trial to make known his revised position in relation to the paragraph because:
- “I felt the paragraph in itself implied something which was not, well I suppose it’s a paragraph directly contrary to what I say, but I felt it was possible to explain the paragraph without so stating that the opinion was wrong.”
117. I also note that Mr Carruth did not take the opportunity presented by his later written answers to questions to make his position on this important point clear.
118. Given the initial estimate of “approximately ten years” I conclude that Mr Carruth was careless in signing the joint statements containing this answer, which goes to the heart of these claims. This carelessness in respect of an important point manifested itself on two separate occasions, is a cause for concern in an expert witness who owes his primary duty to the court and has devalued Mr Carruth’s authority and credibility in these cases.
119. Fifth, I note with surprise that Mr Carruth took no steps to have his admittedly novel method of calculation considered by any form of peer review. Mr Carruth had not prepared and submitted a paper for publication, nor had he presented his methods for scrutiny by those better able to analyse, criticise or support the same. For example, Mr Carruth could have put his theories before one or more of the authors of the Guidelines. This would not have been onerous as Mr Carruth knows two of them.
120. Given Mr Carruth’s particular experience and qualifications on the one hand and his novel use of the Guidelines on the other, I would have expected Mr Carruth to seek comment and criticism from those better qualified than himself to develop and override the express boundaries of the Guidelines.
121. The best that Mr Carruth could say to me was that depending on the result of this case, he might well prepare a paper for submission. That is, with respect, the wrong way round. It

is Mr Carruth who is seeking to overturn an express restriction in the Guidelines as to the limits of their use and it was for him to demonstrate the coherence of his methods.

122. Sixth, Mr Carruth is not a statistician nor epidemiologist. I have already quoted the express reservation in the Guidelines. They were prepared and published on the basis that they were of diagnostic assistance, but could not measure the degree of NIHL. I am unable to accept Mr Carruth as adequately qualified to override that express reservation by the three distinguished authors.
123. I accept that one of the authors of the Guidelines or a suitably qualified expert might well be in a position to present the court with opinion evidence of a nature and quality sufficient to support a finding extending the use of the Guidelines. I am satisfied that the evidence of Mr Carruth in these cases does not fall into that category.
124. Seventh, the claimants did not call or present in evidence the views of any of the authors of the Guidelines. The CPR provide a variety of ways in which evidence may be put before the court. An inability or unwillingness to attend a trial in a remote court may be answered with a video link or amplified telephone call. Alternatively the Civil Evidence Act may be used. At the very least correspondence may be put before the court. In noting this evidential deficit I contrast the position in the case of *Parkes v. Meridian* [2007] EWHC B1 (QB), *The Nottinghamshire Textile Litigation*, where Professor Lutman, one of the authors of the Guidelines, was called by the claimants to give expert evidence.
125. I have already mentioned the attempts on both sides to try and introduce in some informal fashion the views of one or another expert in the field. I have two comments. First, the fact that both sides attempted this indicates a shared realisation that the experts called in these cases needed support on this specialised and technical subject. Secondly, I have already made clear that I am not prepared to give any weight to incomplete reports of telephone conversations whether relayed by Dr Yeoh or by Mr Carruth via Mr Huckle.

126. Those are my reasons for rejecting that part of Mr Carruth's evidence relating to the calculation of the period of advancement. I should also indicate my views on Dr Yeoh and his evidence.
127. Dr Yeoh, compared to Mr Carruth, was a more impressive witness. Dr Yeoh is an experienced consultant audiological-vestibular physician who has undertaken research, is published on the subject of NIHL and he has held a number of positions in professional and statutory bodies including the Hearing Aid Council. He is responsible for the chapter on the causes of NIHL in the current edition of *Scott-Brown on Otolaryngology*.
128. As an expert witness Dr Yeoh is broadly instructed on an equal basis by claimants and defendants. When he gave evidence he did so in a consistently impressive manner and withstood well an extended and testing cross-examination by Mr Huckle. Generally speaking, I preferred the evidence of Dr Yeoh to that of Mr Carruth, particularly on the question of the calculation of the period of advancement.
129. I have concluded that the position of Dr Yeoh is essentially defensive. He remained unpersuaded that Mr Carruth's novel methods were valid and he maintained his opinion that the limitation on the use of the Guidelines as expressed by the authors remained valid. However it was not for Dr Yeoh to disprove but rather for Mr Carruth to prove the validity of his methods of calculating the period of advancement. For the reasons I have set out above, Mr Carruth failed to do so.
130. In these circumstances I see no reason to extend this judgment with my views on the respective merits of different population databases, the selection of the appropriate centile or the precise methodology and assumptions used by Mr Carruth in his two methods of calculation. These complex and time consuming sub-issues were never clearly identified on the pleadings or at the case management conference or during the pre-trial reviews before me. For the reasons I have given Mr Carruth was unable to progress his arguments to the point where disputes of that nature must be resolved.

131. I wish to emphasise that I am not making a finding that the Guidelines may not be used for the calculation of the period of advancement as suggested by those acting for the claimants in this case. My conclusion is that the nature and quality of the expert evidence put before me on behalf of the claimants has failed to persuade me that it is proper to use the Guidelines for that purpose in this case. A different case, with different evidence in support, might have a different result.
132. It is however worth stating that the advancement or acceleration of symptoms is not a concept that can easily be quantified or has any particular benefit for doctors in clinical practice. It is used entirely to try and help lawyers quantify elements of damages. In such circumstances it should not be surprising that the attempt in this case to develop the concept into an arithmetical and precise tool has run into difficulties.

The cost of digital hearing aids

133. As part of his closing submissions Mr Huckle prepared a schedule for each claimant entitled "Intermittent Expenditure Schedule of Loss (Hearing Aids)". It was these schedules that Mr Huckle relied on to demonstrate the value of each claim for special damages. Mr Huckle assumed, for the purposes of these schedules, that the mean cost of an appropriate digital hearing aid was £1,500. There was also broad agreement that such aids last for at least five years before being replaced for one reason or another.
134. The development of the evidence relating to the cost of hearing aids followed a similar pattern to that of the expert medical evidence, in that the agreed positions prior to the trial were changed shortly before the start of the same.
135. In October 2005 Mr Munn prepared an assessment report on Mr Coffin where he estimated the cost of open ear digital aids at between £1,400 and £1,800 each. In March 2007 Mr Munn reported on the trial of aids he had arranged for Mr Coffin. The cost of the aids used were between £1,650 and £1,800 each.

136. In his report on Mr Coffin dated 12th March 2007, Mr Ormerod estimated the cost of suitable hearing aids to be between £995 and £1,295 each.
137. In their joint statement dated 29th June 2007 the two hearing aid experts agreed that the likely cost of each aid for Mr Coffin would be £1,200 to £1,800 “for the latest generation of digital open ear hearing aids”.
138. So far as Mr Tarrant was concerned, the report by Mr Munn dated May 2004 estimated the cost of digital instruments to be between £600 and £2,800 each. After Mr Tarrant had tried an aid in his left ear Mr Munn reported that the cost of that aid would be between £1,200 and £1,800.
139. Mr Ormerod, in his report on Mr Tarrant dated 12th March 2007, estimated the cost of an aid for the left ear to be between £995 and £1,295.
140. In their joint statement dated 29th June 2007 the two hearing aid experts agreed that the likely cost of the aid for Mr Tarrant would be £995 to £1,295 for the model used in Mr Munn’s trial or £1,200 to £1,800 “for the latest generation of digital open ear hearing aids”.
141. However, in his letter dated 24th October 2007, Mr Munn increased these figures:
“the price of the Sonic Open-Ear instruments provided to ... Mr Coffin remains unchanged and is at £1,795 each, however there is now available further improvements to this instrument which I believe would add additional benefit to these claimants, and the newer version is currently available at £1,995 each.”
142. Mr Munn then went on to suggest that newer models would also benefit Mr Tarrant, with a price range of £1,795 to £1,995 each. I have set out this passage in the letter when discussing the claimants’ hearing, above.

143. When Mr Munn was cross-examined he agreed that since 2006 he has been working for the Specsaver chain at its Salisbury branch as a hearing aid consultant. I note with some surprise that there was no reference to this employment in any of Mr Munn's reports or letters written in 2007, nor was he asked about it during in examination in chief.

144. In cross-examination Mr Munn agreed with Mr Williams that Specsaver prices were very considerably below those he had been quoting in his various reports and he provided additional information:

"The prices Mr Ormerod and I agreed are not Specsaver prices. The Specsaver prices significantly differ from all private dispensers. They are supplied on a two for one basis and it is on that basis they are made as an offer. Advertising regulations mean the offer on a particular aid cannot be permanent and it is suspended for at least a month before being reintroduced. In the joint statements the cost of each aid is given as £1,200 to £1,800 per instrument. In fact I get two for the price of one through Specsaver. It is a different price now and things have moved on. I could supply open ear digital aids for around £795 today, for a pair of them. A single aid would be the same price. Subject to the advertising regulations, it is a permanent deal. The offer will be suspended for one month, then it will revert to the earlier lower price. Specsavers have come into market to undercut people like me and Mr Ormerod in private practice. At Specsaver we are providing a better, more cost effective service to the public. ... In my letter dated 27th October 2007 I did not include all of this because I have no commercial interest in the clients. I am quoting prices across the board. I believe I said in one letter the aids could be supplied cheaper."

145. Mr Ormerod confirmed that the price quoted by Mr Munn, £795 for the pair trialled by Mr Tarrant, was correct. He said that the aids were low to middle range models. I therefore accept Mr Munn's evidence on the current cost of suitable hearing aids.

146. Mr Ormerod told me:

“I am aware of Specsaver’s pricing policies and their two for one offers. The range of products included in the offer had been fairly limited to October, but it is now enormous. They have moved to three main suppliers and greatly increased the range under offer. This accounts for the different prices Mr Munn mentioned. I can confirm the price of £795 for the pair of aids trialed by Mr Tarrant.”

147. Mr Ormerod went on:

“The pricing has had an effect on the market. Specsaver are looking for revenue generation and are attempting to buy in and they are having an effect. Other retailers are trying to match them and compete.”

148. Mr Ormerod told me that he did not believe that Specsaver’s strategy was sustainable in the long term, that he believed customers bought on service rather than price and he stood by the prices he had referred to in his reports and in the joint statement. However he did concede that historically prices of aids were falling, that he had not seen Specsaver’s business plan and that Mr Munn, when working for Specsaver, would be expected to provide the same level of professional service as he would working for himself.

149. In this context I also bear in mind the evidence to Mr Yeoh, who told me that the NHS, as a major bulk purchaser, pays as little as £100 for digital hearing aids. The reality is, I find, that if the claimants were told to spend their own money on suitable hearing aids they would go to Specsaver (or an equivalent provider) and purchase these aids for the lowest price on the open market.

150. I find that the advent of digital hearing aids has caused significant changes in the way in which hearing aids are provided. I find that High Street retailers are now able to undercut the prices formerly charged by the specialist hearing aid dispensers. In the past such dispensers have had no competition from High Street shops. That has now changed. The ability to program such aids by reference to automated audiometry means that significant elements of the setting up process are greatly simplified. I consider it unlikely that in the future the cost of aids reasonably suitable for these claimants will rise to any significant

extent. Modern digital aids can be tuned to assist with the hearing of only the impaired frequencies. Their performance and small size means that they are of benefit to and acceptable to more people. No longer do dispensers have to provide in-ear moulding. Such moulds are not needed for open ear digital aids.

151. The evidence I have heard persuades me that the situation is similar to that which obtains with the supply of prescription spectacles or the motor trade. Specialist sellers (opticians and the franchised main car dealers) co-exist with chemist chains and car supermarkets where prices of the products are significantly lower. As Mr Ormerod said, there will always be a demand for a more personalised service. The fact that specialist opticians continue in business alongside chemists which provide a pick your own glasses service at a much reduced cost supports this conclusion.
152. In assessing the compensation in these cases I cannot ignore the oral evidence of Mr Munn and Mr Ormerod. I see no reason why the claimants should receive compensation assessed by reference to the list price of the most expensive aids available from specialist dispensers rather than the High Street open market price of aids reasonably suitable for their hearing deficit.
153. I find as a fact that a pair of digital open ear hearing aids reasonably suitable for Mr Coffin's needs may be obtained for no more than £1,000 and I find that such aids should last for at least five years before needing replacement. I have reached the £1,000 by noting Mr Munn's estimate of £795 for a pair. There was an argument about the cost and worth of extended warranties which Mr Munn fairly said he regarded as overpriced. The cost of adding such aids to the all risks section of a household policy of insurance would be modest but should be taken in account and for five years that gives my figure of £1,000.
154. The same type of aids would also meet Mr Tarrant's reasonable needs and in his case I assume that modern open ear aids are physically interchangeable between each ear. In

coming to these conclusions I have had in mind the fact that neither claimant is going to use an aid on a full-time basis.

155. The cost of batteries, at £50 per annum, is agreed and that is an extra £250 for the five years. This gives a total of £1,250 for a pair of hearing aids and the associated ownership costs for five years.

156. Mr Huckle submitted that when costing the aids reasonably required by the claimants, the mean of the costs agreed by Mr Munn and Mr Omerod should be chosen. The range was £1,200 to £1,800 per aid. The problem with this approach is that it requires me to ignore an important element of the oral evidence of Mr Munn on this question. Mr Munn's oral evidence may have been, in parts, unwelcome to those acting for the claimants but he revealed that the market for hearing aids has changed. If I were to use the mean of the agreed figures I am satisfied that I would be over-compensating each claimant.

Other points

157. Mr Williams initially argued that if aids were required then the claimants should be obliged to obtain them from the defendant. A proposition that the victim of a tortfeasor can be forced to obtain assistance from the tortfeasor was novel, impractical (what happens if Ford closes the Swathling works or a claimant moves out of the area?) and was not seriously pursued.
158. Mr Williams also argued that the claimants would obtain their aids from the NHS and therefore were not entitled to compensation. I reject this.
159. The evidence does not support a finding that either claimant will in fact obtain an aid from the NHS. Mr Tarrant told me that if he was awarded compensation he would go out and buy his hearing aid. Mr Coffin told me that he understood there was a long waiting list for NHS aids at Southampton. He went on to agree with Mr Williams that if the time had come when he needed hearing aids in any event then he would probably not have bought

them privately. However that is not the same as Mr Coffin accepting that he would try and obtain the aids he needs now from the NHS.

Conclusions

160. This was not a complicated case and should not have become one. It was admitted that the hearing of both claimants had been damaged by exposure to noise whilst they were working for the defendant. Their NIHL was actionable. General damages were agreed for both claimants. The audiology experts (to whom the medical experts deferred) agreed that Mr Coffin needed a digital in-ear hearing aid in both ears and that Mr Tarrant needed one such aid. The reasonable need for aids as a consequence of the defendant's admitted breach of duty has been established.
161. The evidence at trial of current market conditions established that the retail cost of such aids has fallen significantly and the prices originally set out in the reports were no longer realistic. This could and should have been addressed prior to the trial and revised figures substituted.
162. The final step is to estimate, if possible, the period by which the claimants' need for hearing aids had been accelerated. It was agreed that hearing aids have an effective working life of about five years after which they will need to be replaced. Given the age and other circumstances of the claimants the question really becomes: is the period of acceleration more than five years or more than ten years? Up to five years is one set of aids, up to ten years is two sets, above ten years is three sets and so forth.
163. The obvious imprecision inherent in that question and answer reinforces my conclusion that a conventional multiplier/multiplicand calculation is not, in this case, possible. I have rejected Mr Carruth's evidence on this point and that devalues his first estimate of approximately ten years. Dr Yeoh was unable or unwilling to provide me with an estimate of acceleration at all.

164. Ordinarily one would expect the medical experts to use their knowledge and experience to estimate the period of acceleration. I have never seen a calculation by an orthopaedic surgeon purporting to set out by how many years the symptoms of pre-existing but symptom-free osteo-arthritis had been advanced by the material accident. Such experts provide the court with a figure based on the medical history, pathology, their clinical experience and judgment and the court proceeds accordingly.
165. The claimants having proved their need for hearing aids it would be wrong to give them nothing simply because those acting for them advanced a novel method of calculating the multiplier/multiplicand in a manner that I have held to be unpersuasive; see *Blamire v. South Cumbria Health Authority* [1993] PIQR Q1.
166. Given my finding that in this case the evidence does not permit a conventional arithmetical way of calculating this element of compensation I propose to take a broad view to assess the loss. I take into account all the evidence in the case including the nature and extent of each claimant's hearing disability; their work history and exposure to noise at work; their ages; the audiological and medical history before me; the uncontentious elements of the expert evidence and what I have found to be the current and probable future open market conditions for the supply of hearing aids.
167. I must also consider the various contingencies. It is not possible to predict the progress of hearing loss due to presbycusis and/or other factors. The points at which an individual will first require and secondly, accept the need for, an aid cannot be predicted. The period of advancement (on the evidence before me) cannot accurately be calculated. A broad approach is necessary.
168. Mr Williams argued that the claimants' experts differed in their approach to the question of reasonable need. He submitted that whilst Mr Carruth considered that each claimant reasonably required an aid, Mr Munn considered whether or not each claimant might benefit from an aid, which is not the correct question. Mr Williams then used selected

epidemiological data to try and establish that each claimant, by reason of ageing alone, would have required an aid sooner rather than later, in any event.

169. I have found that the evidence of the claimants themselves establishes their reasonable need for the aids. The agreement reached by Mr Munn and Mr Ormerod supported this evidence on this point. Given my conclusions in respect of the expert evidence I am not prepared to try and perform a theoretical calculation to cloak my broad assessment with an unwarranted arithmetical cover.
170. I conclude that each claimant has proved that his reasonable requirement for hearing aids has advanced by more than five years but by no more than ten years. Each claimant is therefore entitled to his first and second aid(s). I therefore propose to award £2,500 to Mr Coffin and £1,250 to Mr Tarrant.
171. On the basis of Mr Munn's figures this will provide Mr Coffin with two sets of two aids and a small sum for adding those aids to his all risks insurance. I have estimated the latter simply by rounding the figure up to £1,000 per set, plus £500 for ten years of batteries.
172. So far as Mr Tarrant is concerned, Mr Munn's evidence was clear: one aid would be the same price as two in current market conditions. On the basis of my assumption as to interchangeability, one aid will be worn for the first five year period, with the second aid taking its place thereafter. There will be a saving in batteries with only one aid at any one time needing replacement batteries. The ten years of batteries is therefore reduced to £250. The other estimates as to insurance are the same as in the case of Mr Coffin.
173. I will adjourn for 28 days all applications arising out of this judgment. During this period the parties may be able to agree an order.

Postscript

174. Finally, I should again draw attention to the fact that both experts called by the claimants withdrew at a late stage from previously agreed positions on important issues. For one expert to withdraw from a joint agreement happens from time to time, usually for a good and clearly explained reason. For both experts to withdraw, in the manner, for the reasons and with the consequences I have described, was surprising.