

**IN THE DISTRICT COURT
AT WELLINGTON**

**I TE KŌTI-Ā-ROHE
KI TE WHANGANUI-A-TARA**

[2021] NZACC 32 ACR 267/17

UNDER	THE ACCIDENT COMPENSATION ACT 2001
IN THE MATTER OF	AN APPEAL UNDER SECTION 149 OF THE ACT
BETWEEN	KELVIN FISHER Appellant
AND	ACCIDENT COMPENSATION CORPORATION Respondent

Hearing: 24 November 2020
Heard at: Dunedin/Otepoti

Appearances: Mr P Sara for the appellant
 Mr C Light for the respondent

Judgment: 9 February 2021

**RESERVED JUDGMENT OF JUDGE C J McGUIRE
[Measurement of Hearing Loss - Personal Injury s 26(1A)
Accident Compensation Act 2001]**

[1] The issue on this appeal is the correctness of ACC's decision of 5 December 2016 declining cover for work-related hearing loss on the basis that the work-related hearing loss was less than the 6% threshold.

Background

[2] According to evidence given at the review hearing, the appellant worked for approximately 20 years in a factory environment at Murdoch Trent, a subsidiary of Foodstuffs. He says he started off in the warehouse where there was a lot of noise from trucks and forklifts before moving to the factory where he oversaw cleaning product production. He described a 5,000-litre mixing tank that had a gantry around

it. He spoke of products that had to be pumped approximately 25 feet in the air through a plastic pipe. The product was then pumped back down to the people below filling the product. He said the pump was not small, the noise was constant and that he was doing it for eight hours a day, five to six days a week. He said:

So it wasn't intermittent and it wasn't minor. We are talking about major industrial motors, probably the motors would be the equivalent of the size of a car motor but because they weren't muffled they contributed a lot more noise.

He said that no hearing protection was offered.

[3] There is an affidavit from Mr Arthur, who worked in the same factory. He said:

...

21. The overall noise level in the factory was high. If I wanted to communicate with another person, shouting would not work. In every case, what I would need to do was to go to that person and move as close as I could and speak to the person in a raised voice to be heard.
22. A lot of Kelvin's work required him to be on a kind of walkway situated around the sides of the vat and this walkway would be approximately 1.5 to 2 metres above ground level. If he was on the walkway and I was on the ground, he would not be able to hear me talking at all. He would need to come down from the walkway to where I was and stand right next to me, in order for us to converse.
23. More often than not, we would have to move right away from that machine to a different part of the factory, in order to carry out a conversation, rather than attempt it there, where it was particularly noisy.

[4] The appellant underwent an audiometric assessment with audiologist, Simon Begg, on 16 September 2016. He assessed the appellant's total hearing loss at 29.3%.

[5] On 23 September 2016, the appellant and his general practitioner completed an injury claim form, claiming cover for a work-related noise-induced hearing loss.

[6] The appellant was asked to see a specialist otolaryngologist, Martyn Fields, who reported on 27 November 2016.

[7] He attributed 3% of Mr Fisher's hearing loss to work-related noise exposure with the balance to "other".

[8] In his report Mr Fields said:

3, 4, 6 khz are the frequencies most susceptible to noise exposure. If these frequencies are used to provide an estimate of the possible noise induced loss, a figure of 7.4% is obtained. However, as the pattern of loss is not classical for noise, some of the loss present at 3, 4 and 6 khz is likely to have a similar aetiology to the loss and lower frequencies. The occupational noise described was mild and intermittent. No ear protection was required. If the noise levels had been significant – a large company such as Foodstuffs would have required ear protection to be worn by the mid to late 1980s if the noise was loud enough to be causing a significant loss. The pattern of loss is not typical for noise and is far greater than would be expected from the information provided. In the absence of any actual workplace noise levels, I would have expected the occupational loss to be less than 3%.

[9] Mr Fields noted relevant employers or job tasks that caused or contributed to the noise-related hearing loss as follows:

1982-1987 Foodstuffs Limited as a warehouse worker. Noise from forklifts (battery and diesel), delivery truck engine noise. No ear protection.

1987-02 Murdoch Trent Limited: factory worker – production line noise, industrial motors, mixing equipment, trucks, forklifts etc no ear protection.

2003-04 Champions Sports Bar: bar manager. TVs, music, bar chillers etc. No ear protection.

[10] Mr Fields said that there were three requirements for a diagnosis of occupational hearing loss, namely:

[a] A measurable high frequency sensorineural hearing loss. This was present, however there was also a significant mid to low frequency loss.

[b] A history of potentially damaging noise exposure at work. This was also present, however, the probable noise levels would have been intermittent and minor.

[c] An appropriately shaped audiogram. Bilateral high frequency symmetrical sensorineural hearing loss was present. There was no classical notch present above 3 khz, however there was a small notch at 2 khz more typical of a genetic/inherited pattern of loss. The additional mid to low frequency loss was not typical for noise exposure.

[11] Mr Fields said that he had not identified a specific cause of this additional idiopathic cochlear degeneration.

[12] Mr Fields produced another brief report to ACC on 9 February 2017, following additional information received from Mr Fisher about his work environment.

[13] In his report he said:

Mr Fisher does not have the typical pattern of hearing loss found with noise exposure. He has shallow sloping loss between 1 khz and 8 khz with no classical notch at 3 to 6 khz. There is additional loss below 1 khz which is not typical for noise. The total loss 29.3%. This figure is much higher than could be explained by occupational noise. In my experience someone working in a very noisy environment for 40 plus years (such as a panelbeater at hillside workshops) would have a 15% to 20% loss. As 3-6 khz are the frequencies that are most susceptible to noise – using these three frequencies provides a guide to the possible maximum noise induced loss (if the pattern of loss is typical). On this occasion this figure is 7.4% however some of this loss will be related to the cause of the loss in the other frequencies. If a line is drawn on the audiogram from 1 khz to 8 khz – if a noise induced loss is present, the loss at 3, 4 and 6 khz would be well below this line. This is not the case for Mr Fisher.

Another alternative is to look at the duration of exposure 1987-2002 (15 years) Murdoch Trent and 1982-87 five years Foodstuffs. In my experience, someone working in this sort of environment could develop a 0.1% to 0.2% loss per year if the noise was continuous and with no ear protection. 20 years multiplied by 0.1% equals 2% and 20 years at 0.2% equals 4% however the level of noise would have been variable and is unlikely to have been greater than 90 dba all the time so the true loss could well be less.

In my original report, I estimated the occupational noise induced loss to be 3%. The true figure could be a little higher (or lower) but in my opinion is unlikely to be greater than 4%.

[14] Patrick Dawes, Otolaryngologist and Head and Neck Surgeon, provided a second opinion on 16 June 2017.

[15] He said:

Mr Fisher presents with a single pure tone audiogram dated 16 September 2016. That audiogram shows threshold elevation present across all frequencies gradually rising to a maximum of 8 khz, there is a minor threshold elevation at 2 khz greater than the adjacent 3 khz frequency. There is no previous audiometry by which to gauge how hearing has changed across time.

The pattern of threshold elevation is not that typically expected with noise induced hearing loss. Noise induced hearing loss typically shows its effect at frequencies 3-8 khz with maximal hearing loss at 4 or 6 khz frequency and thresholds recovery at 8 khz. This is a very repeatable pattern of threshold

elevation. The hearing loss across frequencies 3-8 khz develop slowly as a result of repeated exposure to noise at high levels. Factors that influence the rate of progression of noise induced hearing loss include individual sensitivity to the injurious effect of noise, the noise levels to which the individual is exposed, the durations of exposure of such noise and the use of hearing protection. With noise induced hearing loss the 2 khz threshold is not expected to be greater than the adjacent 3 khz threshold and the configuration of the audiogram across frequencies 1.5-3 khz is not that expected from noise induced hearing loss.

[16] Mr Dawes explained that individuals that are noise exposed can have other uncertain causes contributing to their total hearing loss. The combination of causes produce the pattern of threshold elevation seen on the pure tone audiogram. Therefore, when there is another cause contributing to the hearing loss, this can mask the pattern of noise-induced hearing loss, making it very difficult to determine the amount of noise induced hearing loss that an individual may have suffered.

[17] Mr Dawes considered that the exposure to noise was primarily from the work at Murdoch Trent. The noise level may have been about 90 dBA. Mr Dawes also referred to a measurement of decibel levels for food manufacture in Singapore as an average of 92 dBA, although that was likely on the high side given the nature of the work that Mr Fisher described.

[18] The appellant also described working evenings for his father from about age 13 to 15. This work involved collecting and delivering a variety of materials and being driven in a commer truck. The truck had the engine sitting in the cab and no muffler on the exhaust. The appellant says that he would have to shout to communicate with his father. He would often work from about 3.30 pm to 10 pm. In his report, Mr Dawes said that considering the work for his father for a period of two years, and the noise level at Champions Bar, the upper estimate for the noise emission level could be 105 dBA.

[19] Mr Dawes then set out possible percentages of hearing loss on the assumption that the person was highly sensitive to noise-induced hearing loss as opposed to the average person. As he said, the estimates come with lower probability that the individual would have this degree of noise-induced hearing loss. He said:

The amounts of noise induced hearing loss estimated above are not as great as the total hearing loss on Mr Fisher's audiometry and this increases the

probability that there is another, uncertain cause responsible for most of his hearing loss. This is also supported by the configuration of the audiogram across the mid frequencies where the pattern threshold elevation is not that expected that with noise induced hearing loss even among somebody with greater than average progression of noise induced hearing loss. When considering how much noise induced hearing loss Mr Fisher may have the configuration of the audiogram should be taken into consideration as it will influence the amount of noise induced hearing loss present across the higher frequencies.

[20] Mr Dawes said that on the probabilities, although the total hearing loss at 3-8 khz was 8.2%, it was probable that the noise induced hearing loss was less than this. The national physical laboratory acoustic report paradigm suggested that an individual among the most sensitive 10% of the population would have incurred a 4.2% noise-induced hearing loss. Therefore, it was unlikely that Mr Fisher has more than 6% noise-induced hearing loss.

[21] Mr Dawes concluded:

There is another cause responsible for the majority of Mr Fisher's total hearing loss, the history and examination do not point to a specific cause and it is likely that over time Mr Fisher's hearing will deteriorate because of this other uncertain cause of hearing loss. He is no longer exposed to injurious levels of noise in the workplace and noise induced hearing loss is not expected to deteriorate after cessation of noise exposure.

...

The pattern of hearing loss in his audiogram is not that expected from noise induced hearing loss and the total hearing loss is greater than one would expect from noise injury as the sole cause of hearing loss even for a man who has spent their full life working in a very noisy environment such as an engineering work shop and without the benefit of protection. The national physical laboratory acoustic report paradigm is helpful in trying to determine how noise may have had an effect on Mr Fisher's hearing and in terms of determining the probability that he may have incurred more than 6% noise induced hearing loss through work.

[22] In his covering letter addressed to the appellant dated 16 June, Mr Dawes said:

It is not possible to give an absolute figure for your noise induced hearing loss but it is possible to give an indication for hearing of the probability of you having incurred a more than 6% noise induced hearing loss.

[23] The appellant obtained a further report from Dr David McBride, Occupational Medicine Specialist, who reported on 20 December 2017. Dr McBride agreed that

not all of Mr Fisher's hearing loss was noise induced but arrived at a noise-induced hearing loss of 9.8%.

[24] Mr Light, Counsel for the Corporation, requested Mr Fields to comment on Mr Dawes' and Dr McBride's reports. Mr Fields provided a report dated 10 March 2018. Amongst other things he said:

Whilst Mr Fisher is likely to have been exposed to noise levels sufficient to have resulted in some hearing loss, the duration of exposure was relatively short. The most significant noise occurred between 1987 and 2002 (14 years when working for Murdoch Trent. In my experience, very few occupations result in more than .3% loss/year of exposure and often 0.2%/year or less ($14 \times .3\% = 4.2\%$. $14 \times 0.2\% = 2.8\%$). Workers in heavy industry such as a panelbeater/boiler maker at NZ Railways Hillside Workshops may have a higher rate of loss which may reach .5% per year of exposure. Whilst there was noise exposure at Foodstuffs (open warehouse with trucks and forklifts) the noise would not have been continuous and sound intensity reduces rapidly as the distance from a noise source decreases. The noise levels while at Champions Bar would also be expected to be considerably less than Murdoch Trent.

[25] Mr Fields further commented that no actual workplace noise levels were available. He noted that when estimating possible noise levels, it was possible to overestimate the levels in favour of the patient or client when asked to provide the best case or the strongest argument in their favour. In this respect, Mr Dawes had estimated the possible noise levels to be of 90 to 92 dBA but had used 105 dBA in his calculations. Dr McBride was also unable to provide specific noise levels and had estimated the probable noise levels to be 85 to 88 dBA. He then added in possible further factors with the result that the dBA was 93 to 95 dBA of continuous noise that increased to 98 dBA at times.

[26] Mr Fields said:

95 dba is extremely noisy and difficult to tolerate for a sustained period. The decibel scale is logarithmic and there is a doubling of sound intensity for (roughly) every three db change. This makes a significant difference when estimating the effect of noise on hearing loss.

[27] Mr Fields also commented on the fact that Mr Dawes and Dr McBride referred to the hearing loss by the most susceptible fifth percentile of the population, in other words, one in 20 persons. As he pointed out, that meant that 19 out of 20 persons were less susceptible to noise.

[28] Mr Fields said, in respect of Mr Dawes' conclusions, that the possible range of occupational hearing loss for Mr Fisher was 0.5% to 10.8%. The possible loss of 10.8% was for someone in the fifth percentile, 1 in 20 of the most noise sensitive persons. The figure dropped to 4.2% for the 10th percentile, 1 in 10 of the most noise sensitive, which he noted was similar to his own 3% estimate. By the 25th percentile, 1 in 4 most sensitive, the estimated loss was 0.5%.

[29] Mr Fields also pointed out that damage from noise was thought to occur at the time of exposure. Although Mr Fisher had problems with communicating from that time, he had become aware of gradually increasing hearing loss over the previous 15 years, which was after the noise exposure ceased. This was more compatible with a progressive hearing loss not caused by noise. Mr Fisher did not obtain any audiometry until 2016. If he had suffered the majority of the loss in 2002, Mr Fields would have expected him to have sought help earlier.

[30] As regards to pattern of hearing loss Mr Fields said:

The typical pattern of noise induced hearing loss is a high frequency sloping loss above 2 khz, usually (but not always), with a notch at 3-6 khz with some recovery at 8 khz. Mr Fisher does not have this pattern of loss and has a significant loss of 21% at 2 khz and below that is very unlikely to be noise related. Mr Dawes comes to a similar conclusion. If there is non noise loss in mid to low frequencies, one would expect a similar aetiology for some of the losses in the higher frequencies. The actual pattern of loss (with a "notch" at 1.5-2 khz) is much more typical of a genetic/inherited pattern of loss.

[31] As to Dr McBride's table 5 on page 8 of his report, Mr Fields said that to reach the figure of occupational loss of 9.8% Dr McBride included the losses at 2 khz and below, which makes up 4.9% of the loss. As noise tended to affect the upper frequencies (3, 4 and 6 khz) the most, the percentage attributed to these upper frequencies was 4.7%.

[32] Dr McBride reported again on 11 October 2019.

[33] After analysing the described set up at Murdoch Trent, he said:

Apart from these intermittent sources of noise energy, I would estimate the continuous "background" levels, with the various pumps, agitators and motors in an "unfriendly" acoustic environment to lie between 85-88 dba, which is the level to be expected in a noisy workplace.

The impact noise from the compressed air actuating system would have added a considerable amount of energy to the background noise, a level of 3-5 db or possibly more, being quite likely.

The use of steam would also have further elevated the noise levels, it is difficult to be precise about this, but at least perhaps 6 db and possibly more.

My estimate would be that the equivalent continuous noise levels are likely to have been of the order of 93-95 db, or possibly more up to 98 db at times.

My estimate of your "average" exposure contributed by this exposure was therefore 95 dba.

[34] Dr McBride also said:

Your hearing is worse than expected at both the low and the high frequencies, which may indicate that either factors other than noise exposure are at play, or alternatively that the noise exposure was in fact more damaging. The latter explanation is much to be preferred, as complex noise containing impacts is known to be more harmful.

Bearing the latter in mind, it is also possible to calculate the hearing loss to be expected with exposure to 98 dba for 14 years, the additional 3 db (at least) being suggested as a kurtosis correction.

[35] His then figure of 9.8% disability due to noise is maintained.

The Appellant's Submissions

[36] Mr Sara acknowledges that in order to have cover under the Act, Mr Fisher must reach a level of 6% noise induced hearing loss. He acknowledges that the medical specialists appear to agree that Mr Fisher's overall hearing loss is 29.3%.

[37] He acknowledges that the medical specialists agree not all this hearing loss is attributable to noise exposure. In particular, Mr Fields initially attributed 3% to noise induced hearing exposure but conceded that it might be 4% but no greater than that.

[38] He notes that Professor Dawes, in his covering letter to his report of 16 June, says it is probable that the appellant incurred more than 6% noise induced hearing loss.

[39] He submits that Mr Fields' opinions are based on an assumption that hearing protection must have been used by Mr Fisher which he says is a factual assertion without foundation. The evidence of both Mr Fisher and Mr Arthur is emphatically

to the effect that no hearing protection was offered or used by the employees at the factory. He submits also that Mr Fields' findings that the probable noise levels for Mr Fisher would have been intermittent and minor, is again without foundation.

[40] He says that in relation to the amount of non-noise-related hearing loss, Dr McBride's explanation was either that the noise was greater than estimated, or there were alternative explanations for the other hearing loss. Mr McBride's calculations result in noise-induced hearing loss of 9.8%.

[41] He says that, although Dr McBride is not an otolaryngologist, he is nevertheless an expert in noise-induced hearing loss and has authored the ACC guide for its diagnosis. He submits that Dr McBride's higher assessment should be preferred over those offered by Mr Fields and that his assessment of noise induced hearing loss of 9.8% should be accepted.

The Respondent's Submissions

[42] Mr Light notes that the focus of the disagreement is on the estimate of the percentage that is due to work-related noise exposure. He submits that this is very much a matter of applying assumptions and then estimating the likely noise-related hearing loss.

[43] He makes this statement because the level of noise in the workplace is not known and more importantly, the impact of that specific noise on Mr Fisher's hearing loss is similarly an estimate.

[44] He notes that the noise level at Murdoch Trent has been variably assumed to be between 85 dBA and as much as 105 dBA. This affects the calculation of the noise-related hearing loss because, as Dr McBride said, the majority of persons would not suffer a hearing loss after a lifetime of working at 85 dBA.

[45] He submits that because the noise level in the workplace was high and there was no hearing protection, a higher degree of hearing loss was inevitable. He said both Mr Fields and Mr Dawes took this into account in their estimates. Mr Dawes recognised in his report that Mr Fisher's description of the workplace was one where

he needed to raise his voice to someone next to him on the gantry and to shout to people further away. This suggested to Mr Dawes that noise levels may have been in the order of 90 dBA.

[46] He notes that Mr Dawes refers to research on sound measured in manufacturing industries in Singapore in 1993, which gave an average daily noise exposure of 92 dBA for food manufacture. Mr Fields, in his report of 10 March 2018, said that 95 dBA was difficult to tolerate for a sustained period and there is no evidence of that being the case. He also pointed out that the decibel scale is logarithmic and doubles at approximately 3 dBA. There is, therefore, a very large difference between 92 dBA and 95 dBA. He submits, in this respect, that with Mr Fields using 105 dBA and Dr McBride using 95 dBA in their calculations, both are most likely on the high side.

[47] He notes the second issue is trying to work out how much hearing loss Mr Fisher suffered due to noise. This cannot be exactly measured and is based on assumptions. Mr Light says the key point here is that Dr McBride's assessment of 9.8% is based on an assumption that Mr Fisher fell into the 5% of the population that is most sensitive to noise-related hearing loss. He says there is no evidence on this point.

[48] He says that in terms of sensitivity to noise-related hearing loss of 4.2% Mr Fisher would be in the top 10% of persons most sensitive to noise-related hearing loss. The relative percentile hearing loss for 1 in 4 people is 0.5% whereas for 1 in 20 people most sensitive to noise the reading would be 10.8% hearing loss.

[49] Mr Light says there is no evidential reason to assume that Mr Fisher falls into the category of persons most sensitive to noise-related hearing loss. For example, if Mr Fisher fell into the middle category of persons, the 50th percentile, then the noise-related hearing loss would be negligible and well below the 0.5% at 105 dBA for the 25th percentile.

[50] Mr Light submits that this would be an appropriate assumption with the test on the balance of probabilities as explained in *Accident Compensation Corporation v*

Ambros.¹ He submits that, in the absence of evidence that Mr Fisher is at higher risk of noise-related hearing loss, Mr Fisher falls into the middle category, not an extreme category of likelihood of causation.

[51] Mr Light also notes that, as Mr Dawes points out, there is another cause responsible for the majority of Mr Fisher's total hearing loss. It was likely over time that his hearing would deteriorate because of this other uncertain cause.

[52] He notes that Mr Fisher said that he had gradually increased hearing loss over the past 15 years, which was after his noise exposure had ceased. Mr Light submits that this is more compatible with a progressive and non-noise caused hearing loss. Mr Light suggests that Mr Fisher would have sought help earlier if most of the loss were already present in 2002.

[53] He submits that the evidence is insufficient, on the balance of probabilities, for Mr Fisher to be within the 5% of the population most sensitive to noise-related hearing loss.

[54] Mr Light also submits that both Mr Fields and Mr Dawes are specialists in the field of otolaryngology. Both also have, to some extent, given Mr Fisher the benefit of the doubt and assumed that he has a greater sensitivity to noise-related hearing loss. Nevertheless, both have reached the conclusion that, at most, his hearing loss due to occupational noise is approximately 4%. Accordingly, he submits the appeal should be dismissed.

Decision

[55] The evidence from the appellant and from his work colleague Mr Arthur describe an extremely noisy workplace, particularly at the Murdoch Trent premises at which the appellant worked from 1987 to 2002. There is evidence of the appellant's exposure to significant noise when he assisted his father in a noisy truck between the ages of 13 and 15. There was also the time between 1982 and 1987 when he was working at Foodstuffs as a warehouse worker and exposed to noise from forklifts and trucks. Finally, there was his time as a bar manager from 2003 to

¹ *Accident Compensation Corporation v Ambros* [2007] NZCA 304, [2008] 1 NZLR 340.

2004 when exposed to noise from televisions, music, bar chillers and other such noises.

[56] From the descriptions of these work environments, I conclude that the noise exposure when he was a teenager in a commer truck without a muffler would have been considerable. Likewise, the noise at Murdoch Trent was sufficiently bad for communication to be possible between persons only when they stood next to each other. I also conclude that the noise associated with the vat and the product mixing machinery was extremely loud.

[57] I have no reason to doubt that in the 1980s, standards conditions at Murdoch Trent were primitive, leaving those employed there to work in unacceptably noisy environments without ear protectors.

[58] Mr Light makes very valid points in his submissions as to the assumptions needed for Dr McBride to reach a total occupational noise-related hearing loss figure of 9.8%. The assumptions include losses at 2 khz and below making up 4.9% of the loss, even though noise tends to affect the upper frequencies of 3, 4 and 6 khz.

[59] He rightly says that, if the lower frequencies are not taken into account, then the percentage attributed to the upper frequencies is 4.7%.

[60] His further point is there is an underlying assumption that Mr Fisher falls into the 5th percentile that is, he is in the category of 1 person in 20 that is most sensitive to hearing loss due to noise.

[61] It is suggested by Mr Fields in his report, of 10 March 2018, that if the noise levels at Murdoch Trent were as high as estimated, then presumably, ACC would have had similar claims for comparison.

[62] While the comment is fair, it is also speculative, and it probably does not give sufficient weight to the precise work that the appellant was doing at Murdoch Trent. According to Mr Arthur's affidavit, his work required the appellant to be on a kind of walkway situated around the sides of the vat some 1.5 to 2 metres above ground level. The appellant also described products being pumped into this vat via a plastic

pipe some 25 feet in the air and that the unmuffled motors would be the equivalent size of a car motor.

[63] As Mr Sara notes, from *Ambros*, causation requires sufficient material pointing to proof of causation and not just risk of causation.²

[64] Here, both the experts and the Court are cast in the role of deciding, on the balance of probabilities, what the correct answer is. For the experts, they acknowledge that their conclusions may be inexact.

[65] Dr McBride, in his report of 11 October 2019, notes that the ACC otolaryngologist's guide, in setting out the steps to diagnosis, says this:

Attribution and particularly quantification of causation is, in essence, an inexact science. Your opinion should be based on the balance of probabilities.

[66] This, understandably in this case, has led to the experts differing from each other, albeit in relatively minor respects.

[67] There is a difference of views as to the decibel level exposure at Murdoch Trent, with the assumed noise levels ranging from 90 to 105 dBA.

[68] Assuming 105 dBA, the noise-related hearing loss for 1 person in 10 would on the underlying data be 4.2% whereas a person in the 5th percentile, that is, 1 person in 20, would have a noise-related hearing loss of 10.8%.

[69] Ultimately, we have Dr Patrick Dawes, Associate Professor of Otolaryngologist, in his covering letter of 17 June, acknowledging the probability that the appellant incurred more than 6% noise induced hearing loss. We also have Dr McBride, in his report of 11 October 2019, reaching a figure of 9.8% hearing loss due to noise.

[70] What is clear from the experts' opinions is that the scientifically conclusive proof of noise-related hearing loss at this point is not possible. In this case, the opinions of each of the experts are entitled to be carefully weighed.

² At [31].

[71] This court is, however, guided by the dicta in *Harrild*.³ I find that a generous and unrigidly approach to the answer in this case means that I should accept the evidence of the appellant's noise-related hearing loss being 6% or more. This acceptance pertains given the wide range of possible variables and unknowns at play, which are currently incapable of more precise assessment. Accordingly, the appeal is allowed. The decision of 5 December 2016 is quashed with the result that cover for work-related hearing loss is granted.

[72] Should there be any issue as to costs, counsel have leave to file memoranda in respect thereof.



Judge C J McGuire
District Court Judge

Solicitors: P Sara, Barrister and Solicitor, Dunedin for the appellant
Young Hunter, Solicitors, Christchurch for the respondent

³ *Harrild v Director of Proceedings* [2003] 3 NZLR 289 (CA) at [19].