

Noteworthy Decision Summary

Decision: WCAT-2007-02600 **Panel:** Marguerite Mousseau **Decision Date:** August 29, 2007

Occupational Noise-Induced Hearing Loss – Permanent Disability Award – Use of Robinson’s Tables – Section 7 and Schedule D of the Workers Compensation Act – Item #31.40 of the Rehabilitation Services and Claims Manual, Volume II

This decision is noteworthy because it provides an analysis of how to address conflicting medical evidence in determining a worker’s entitlement to a permanent disability award for noise-induced hearing loss.

The Workers’ Compensation Board, operating as WorkSafeBC (Board), informed the worker that he did not have sufficient occupational noise-induced hearing loss to receive a permanent disability award. The Review Division confirmed this decision.

The worker’s appeal to WCAT was denied. The panel found that the Board audiologist had erred in stating that there was a family history of hearing loss and in speculating as to non-occupational causes for the worker’s hearing loss. However, the panel accepted the audiologist’s opinion that the history of the development of the worker’s hearing loss was inconsistent with what was recognized in the literature to be the pattern of development for occupational noise-induced hearing loss. If the worker’s exposure to occupational noise had caused any significant degree of hearing loss, it would have occurred in his first 8 to 10 years of exposure; it would not have developed years after he stopped working in a noisy environment.

The panel found that the otolaryngologist’s opinion which was in favour of occupational causation had not taken into account the history of the development of the worker’s loss of hearing. She also found that Robinson’s Tables should be used to determine the worker’s level of occupational noise-induced hearing loss. Item #31.40 of the *Rehabilitation Services and Claims Manual, Volume II* states that Robinson’s Tables will only be applied where there is some positive evidence of non-occupational causes or components in the worker’s loss of hearing (for example, some underlying disease). The panel accepted the Board audiologist’s opinion that the time period in which the worker’s hearing loss developed was positive evidence of non-occupational factors. The use of these tables supported the Board’s decision not to provide the worker with a permanent disability award.

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Panel: Marguerite Mousseau, Vice Chair

Introduction

This appeal involves the worker's entitlement to compensation for occupational noise-induced hearing loss. In a decision letter dated October 6, 2006, an officer of the Workers' Compensation Board, operating as WorkSafeBC (Board), informed the worker that he did not have sufficient occupational noise-induced hearing loss to receive a permanent disability award. This decision was confirmed by a review officer in *Review Division Decision #R0073397*, dated April 5, 2007. The worker appeals the review officer's decision to the Workers' Compensation Appeal Tribunal (WCAT).

WCAT has jurisdiction to consider this appeal under section 239(1) of the *Workers Compensation Act* (Act) as an appeal from a final decision made by a review officer.

The worker is acting on his own behalf on this appeal. There is no employer of record. The worker did not request a particular method of hearing but provided a written submission and appended medical and other evidence to his notice of appeal. Rule #8.90 of the *Manual of Rules of Practice and Procedure* provides that WCAT will normally conduct an appeal on a read and review basis where the issues are largely medical, legal, or policy based, and credibility is not an issue. After reviewing the documents on file and considering the issues to be determined, I find that this appeal may be addressed by read and review since the issues involve the application of legislation and policy to medical evidence.

Issue(s)

The issue on this appeal is whether the worker is entitled to a permanent disability award for occupational noise-induced hearing loss. This includes consideration of whether it was appropriate to use Robinson's Tables to determine the extent of the worker's occupational noise-induced hearing loss.

Background

On April 17, 2006 the worker submitted an application for compensation for occupational noise-induced hearing loss. He indicated that he had retired on October 30, 1997. He had first become aware of hearing loss approximately 20 years earlier; there had been a gradual deterioration in his hearing to the extent that he now had difficulty hearing the phone ring.

The results of hearing tests on April 27, 2006 revealed significant hearing loss. The audiologist who conducted the tests stated that they revealed “a moderate to profound sensorineural hearing loss bilaterally, more marked in the right ear.” She submitted the test results to the Board because the worker had reported occupational noise exposure for more than 30 years while carrying out drilling and blasting work.

Employment information obtained from the worker indicated that he had been self-employed as a farmer from 1980 to 1997 and that he did not have workers’ compensation coverage during that time. Prior to that, the worker had held several jobs, some of which involved significant exposure to occupational noise. Between 1965 and 1979 the worker had been dispatched from the union hall and had worked in blasting or avalanche control and diamond, seismic or shot hole drilling.

According to the noise exposure record prepared by the Board Audiology unit, the union dispatch work involved an average daily exposure to noise at 97 decibels. In addition the worker had worked at a sawmill from November 1958 to August 1959 and that had involved exposure to noise at an average 95 decibels. Other employment such as bartending, picking fruit, and working as a construction labourer had not involved exposure to hazardous levels of noise.

A Board audiologist reviewed the hearing test results, the history of noise exposure, and the history of the development of hearing loss. With regard to the hearing test results, she noted that the pattern of hearing loss was not entirely consistent with the pattern of hearing loss that develops as a result of long-term exposure to noise. For one thing, the worker had significant hearing loss at the low-mid frequency range between 250 and 1000 Hertz. However, exposure to noise causes loss of hearing in the high frequency ranges and hearing is retained at the low-mid frequencies.

In addition, the period during which the worker had developed hearing loss was not consistent with the manner in which occupational noise-induced hearing loss develops. She stated that occupational noise-induced hearing loss reaches maximal levels after 10 to 15 years of exposure, with significantly less hearing loss after that time. In this case, the worker had last been exposed to hazardous levels of noise in 1979 but had not become aware of hearing loss until 1986. This history of development was inconsistent with hearing loss due to long term exposure to noise. She cited a number of articles in support of her statements. The audiologist also noted that age-related hearing loss accelerates significantly over time, especially after age 50.

The audiologist went on to speculate about “Additional risk factors for non-occupational etiology” which included a family history of hearing loss (which, I note, the worker had specifically denied in his application for compensation), presbycusis (age-related hearing loss), severe to profound asymmetric loss, and abnormally poor word recognition abilities.

Since there was positive evidence of causes of hearing loss other than exposure to noise, the audiologist recommended that Robinson's Tables be used to determine the degree of hearing loss that was likely due to exposure to noise. When this formula was used, the degree of hearing loss attributable to exposure to noise was an average 23 decibels at frequencies of 500, 1000 and 2000 Hertz. Under the Act, this is not sufficient hearing loss to merit a permanent disability award. Accordingly, the worker was informed that the Board would provide medical benefits in the form of payment for hearing aids but he was not entitled to a permanent disability award.

After the Board officer had issued the decision to deny a permanent disability award, the worker saw an otolaryngologist and had his hearing tested again. In a report dated November 1, 2006, Dr. Massa, otolaryngologist, noted that the worker had described a very long history of gradual loss of hearing over the last 30 years. He also noted that the worker had a significant history of exposure to occupational noise, having worked on the Mica dam with drilling machinery for 14 years. He described the worker's hearing loss and stated that the pattern of hearing loss was consistent with noise-induced hearing loss or it might also be consistent with presbycusis. Given the history of significant noise exposure, he favoured the former as the more likely cause of the worker's hearing loss.

In his submission to the Review Division, the worker stated that he wanted fair compensation based on Dr. Massa's assessment results. He wanted the decision-maker to take into account the lack of other medical causes for his hearing and the fact that he had been exposed to intense noise for a number of years. He also questioned where the audiologist had obtained the information that his sister had a history of hearing loss. He stated that no one in his family had a loss of hearing. He stated that his hearing had been deteriorating gradually for over 20 years and that age was not a factor in his loss of hearing.

The worker made a similar submission to WCAT. He stated that he did not believe that Robinson's Tables should be used to determine his occupational noise-induced hearing loss. He noted that item #31.40 said that the loss in each ear is measured for compensation under section 7 of the Act. He also noted that the review officer had described Dr. Massa's opinion as vague and he disagreed with that. He also disputed the audiologist's comment that there is no difference in hearing between exposed and non-exposed males after a certain age and he questioned where the audiologist had obtained her information that his sister has hearing loss. Finally, he noted that the Board decision had been made before receiving Dr. Massa's report.

Law and Policy

Section 7 of the Act states that compensation is payable for non-traumatic hearing loss, that arises “out of and in the course of employment.” The compensation must be paid in accordance with Schedule D. Under Schedule D, in order to receive compensation, a worker must have a minimum hearing loss of 28 decibels at the frequencies of 500, 1000, and 2000 Hertzian waves.

There are also a number of policies on hearing loss which are set out in the *Rehabilitation Services and Claims Manual, Volume II* (RSCM II). The policy at item #31.40 of the RSCM II, which the worker noted in his submission, deals with situations where it appears that the worker’s hearing loss is not entirely due to exposure to noise. This policy says, in part:

Where a worker has an established history of exposure to noise at work, and where there are other non-occupational causes or components in the worker's loss of hearing, and where this non-occupational component cannot be accurately measured using audiometric tests, then "Robinson's Tables" will apply. "Robinson's Tables" will only be applied where there is some positive evidence of non-occupational causes or components in the worker's loss of hearing (for example, some underlying disease) and will not be applied when the measured hearing loss is greater than expected and there is only a speculative possibility without evidential support that this additional loss is attributable to non-occupational factors.

Reasons and Decision

I accept the worker’s statement that the audiologist erred in stating that the worker has a family history of hearing loss. There is no evidence to that effect on the worker’s file and he has repeatedly denied that his sister has hearing loss. The audiologist also speculated about a number of other possible causes of the worker’s hearing loss and I have not taken that speculation into account in considering her opinion. However, the aspects of the audiologist’s opinion that relate directly to the development of the worker’s hearing loss and the pattern of hearing loss do not involve speculation and they are supported by the literature that she has cited. Specifically, the audiologist’s opinion that the history of the development of the worker’s hearing loss is inconsistent with what is recognized in the literature as the pattern of development of occupational noise-induced hearing loss is well supported by the literature.

In this regard, I note that one of the articles cited by the audiologist is taken from the text Sataloff, R. & Sataloff, J. (1993). *Occupational Hearing Loss*. New York: Marcel Dekker Inc. (Original work published 1987). In that text, the authors describe the most important features that are characteristic of occupational hearing loss. These include the following, at page 357:

The hearing loss must have developed during the first 8 - 10 years of exposure.

The hearing loss should stabilize if the patient is removed from noise exposure.

In this case, the worker first became aware of loss of hearing several years after he had last been exposed to hazardous levels of occupational noise. His last exposure was in 1979 and by that time he had approximately 15 years of exposure to hazardous levels of noise. But, he did not become aware of loss of hearing until 1986 and he states that his hearing loss has gradually deteriorated in the last 20 or more years.

According to the literature, hearing loss that is due to exposure to noise develops in the first 8 to 10 years of exposure and does not continue to deteriorate once the worker is no longer exposed to the hazardous levels of noise. If the worker's exposure to occupational noise had caused any significant degree of hearing loss, it would have occurred in his first 8 to 10 years of work drilling and performing other work of that nature; it would not have developed years after he stopped performing that type of work.

I have also considered Dr. Massa's opinion but he has not taken into account the history of the development of the worker's loss of hearing and I consider that is a significant omission in his opinion on a matter that relates directly to the opinion that he is giving. It is a more significant error than the error made by the audiologist.

Given that the audiologist's opinion is supported by the literature, I accept her opinion that the time period in which the worker's hearing loss developed is positive evidence of non-occupational factors. Accordingly, I consider that it was appropriate to use Robinson's Tables to determine the degree of hearing loss that was likely related to exposure to occupational noise. I accept the result of the application of Robinson's Tables as reflecting the worker's occupational noise-induced hearing loss. As a result, I find that the worker is not entitled to a permanent disability award.

Conclusion

I confirm *Review Division Decision #R0073397*, dated April 5, 2007. I find that it was appropriate to use Robinson's Tables to determine the extent of the worker's occupational noise-induced hearing loss. I also find that the worker is not entitled to a permanent disability award.

There has been no request for reimbursement of appeal expenses. Therefore, I make no order in that regard.

Marguerite Mousseau
Vice Chair

MM/gw