or material as prima facie evidence if objection is made, except as corroborated by competent and material oral testimony.

(2) Use of reports shall be permitted in any case in which claim for compensation is made, provided the reporting doctor is available for cross examination.

(3) An applicant shall be informed of the provisions of section 102.17 (1) (as), Wis. Stats., and the commission's rules and also that form for reporting will be supplied to him upon request.

(4) Report shall be submitted to the commission upon a form prescribed by the commission and shall be verified or certified. The commission may require additional or supplementary reports. Upon failure of the applicant to submit such reports within the time specified prior to hearing, all reports previously filed may, in the discretion of the commission, be excluded as evidence.

(5) Reports shall be filed with the application for adjustment of claim, or as soon thereafter as possible. Reports not filed with the commission 15 days prior to the date of hearing shall not be acceptable as evidence except upon good cause for failure so to file, established to the satisfaction of the commission.

(6) Upon receipt of report the commission shall promptly serve copy upon the employer or carrier.

(7) The filing of reports under this provision shall be permissible whether or not injury occurred on or before June 10, 1943.

History: 1-2-56; am. intro. par., (2) and (4), Register, October, 1965, No. 118, eff. 11-1-65.

Ind 80.23 Common insurance of employer and third party. In all cases where compensation becomes payable and the insurance carrier of an employer and of a third party shall be the same, or if there is common control of the insurer of each, the insurance carrier of the employer shall promptly notify the parties in interest and the industrial commission of that fact.

Ind 80.24 Statement of employe. When an employe gives a statement signed by him, which in any way concerns his claim, a copy of such statement must be given to the employe. When such statement is taken by a recording device and is not immediately reduced to writing, a copy of the entire statement must be given to the employe or to his attorney within a reasonable time after application for hearing is filed, and the actual recording must be available as an exhibit if formal hearing is held. Failure on the part of the employer or insurance carrier to comply with the above will preclude the use of such statement in any manner in connection with that claim.

History: Cr. Register, March, 1956, No. 3, eff. April 1, 1956; am. Register, October, 1965, No. 118, eff. 11-1-65.

Ind 80.25 Loss of hearing; determined. The report of the medical committee which has revised and updated the report of 1954 is adopted. Such report is as follows:

(1) HARMFUL NOISE. Hearing loss resulting from hazardous noise exposure depends upon several factors, namely, the overall intensity (sound pressure level), the daily exposure, the frequency characteristic of the noise spectrum and the total lifetime exposure. Noise

exposure level of 90 decibels or more as measured on the A scale of a sound level meter for eight hours a day is considered to be harmful to workers.

(2) MEASUREMENT OF NOISE. Noise shall be measured by sound level meter according to the ANSI standard S1.4—1961 and shall be on the "A" weighted network for "slow response." Noise levels reaching maxima at intervals of one second or less shall be classified as being continuous. The measurement of noise is primarily the function of acoustical engineers and properly trained personnel. Noise should be scientifically measured by properly trained individuals using approved calibrated instruments which at the present time include sound level meters, octave hand analyzers and oscilloscopes, the latter particularly for impact-type noises. See Wis. Adm. Code sections Ind 11.03-11.06 inclusive. Register, July 1971, No. 187.

(3) MEASURE OF HEARING ACUITY. The use of pure tone air conduction audiometry performed under proper testing conditions is recommended for establishing the hearing acuity of workers. The audiometer should be one which meets the specifications of ANSI standard 53.6—1969 (4). The audiometer should be periodically calibrated. Pre-employment records should include a satisfactory personal and occupational history as they may pertain to hearing status. Otological examination should be made where indicated. See Wis. Adm. Code sections Ind 11.10–11.12, inclusive. Register, July 1971, No. 187.

(4) FORMULA FOR MEASURING HEARING IMPAIRMENT. For the purpose of determining the hearing impairment, pure tone air conduction audiometry should be used, measuring all frequencies between 500 and 6,000 Hz. The American Medical Association formula\* should be used for determining the percentage of hearing impairment. This formula uses the average of the three speech frequencies of 500, 1000 and 2000 Hz. Audiometric impairment for these three frequencies averaging 25 decibels or less on the ANSI calibration, or 15 decibels or less on the ASA calibration do not constitute any practical hearing impairment. A table for evaluating hearing impairment based upon the average readings of these three frequencies follows below. The zero reference line of the audiometer which is used, whether ANSI 1969 or ASA 1951, must be identified.

(5) PRESBYCUSIS. Hearing loss which some individuals experience with advancing age is known as presbycusis. The average loss at the three speech frequencies of 500, 1000 and 2000 Hz. resulting from presbycusis is less than the 25 decibel ANSI level at which the impairment on the AMA table begins. Therefore, it is the opinion of this committee that no deduction or allowance should be made for presbycusis.

(6) DIAGNOSIS AND EVALUATION. The diagnosis of occupational hearing loss is based upon the occupational and medical history, the results of the otological and audiometric examinations, and their evaluation.

\* Guides to the Evaluation of Permanent Impairment, 1971. Published by the American Medical Association, 535 North Dearborn, Chicago, Illinois 60610.

(7) TREATMENT. There is no known medical or surgical treatment for improving or restoring hearing loss due to hazardous noise exposure.

## (8) HEARING IMPAIRMENT TABLE.

Average Decibel	Per Cent of Compensable	Average Decibel	Average Decibel	Per Cent of Compensable	Average Decibel
Loss	Hearing	Loss	Loss	Hearing	Loss
ASA	Impairment	ANSI	ASA	Impairment	ANSI
		25		~	59
16				52.5	
		27			61
18		28		55.5	62
19	6	29	53		63
20	7.5		54	58.5	64
21	9	31	55	60	65
22	10.5	32	56	61.5	66
23	12	33	57	63	67
24	13.5	34	58	64.5	68
25	15	35	59	66	69
26	16.5	36	60	67.5	70
27	18	37	61	69	71
28	19.5	38	62	70.5	72
29	21	39	00 =		73
30	22.5	40	64	73.5	
	24	41	00 1	75	75
32	25.5	42	66	76.5	76
· 33	27	43	67	78,	77
34	28.5	44	68	79.5	78
35	30	45	69	81	79
36	31.5	46	70	82.5	80
37	33	47	71	84	81
38	34.5	48	72	85.5	82
39	36	49	73	87	83
40	37.5	50		88.5	84
		51	10 444	90	85
42	40.5	52	10 444	91.5	86
43	42	53	77	93	87
44	43.5	54	78	94.5	88
45	45	55		96	89
46	46.5	56	80	97.5	90
47	48	57	81	99	91
48	49.5	58	82	100	92

(a) Obtain the average of the hearing level for each ear at the three frequencies, 500, 1000 and 2000 Hz.

(b) See table for percentage of hearing impairment in each ear.

(c) To determine the percentage of impairment for both ears, multiply the lesser loss by 5, add the greater loss and divide by 6.

Example: Hearing	levels	in dbs	(ANSI	reference	level):	
Frequencies	250	500	1000	2000	4000	6000
Right Ear	20	25	40	55	60	60
Left Ear	30	40	50	60	65	65

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Right Ear— 500— 25	Left Ear- 500- 40				
1000-40	1000 50				
2000 55	2000-60				
Total - 120	Total-150				
$120 \div 3 = 40  \mathrm{db}$	$150 \div 3 = 50  \mathrm{db}$				
40 db = $22\frac{1}{2}$ % impairment, right ear					
50 db = $37.\%$ % impairment, left ear					
To determine bilateral percentage of impairment:					
Multiply lesser loss, $22\frac{1}{2}$ %, by $5 = 112\frac{1}{2}$ %					
Add greater loss	371/21%				

Divide 150 by 6

= 25% bilateral impairment

(9) These criteria are based upon over 20 years experience in the industrial environment and the most recent scientific information available, including the recently adopted Wis. Adm. Code chapter Ind 11, Register, July 1971, No. 187. The definitions in that chapter have been used in these recommendations.

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Members of Medical Subcommittee: Meyer S. Fox, M.D., Chairman James H. Brandenburg, M.D. Roger H. Lehman, M.D. Carl Zenz, M.D.

**History:** 1-2-56; am. Register, January, 1960, No. 49, eff. 2-1-60; am. Register, October, 1965, No. 118, eff. 11-1-65; r. and recr. Register, September, 1972, No. 201, eff. 10-1-72.

Ind 80.26 Loss of vision; determination. The following rules for determining loss of visual efficiency shall be applicable to all cases settled after December 1, 1941, irrespective of the date of injury, except that, in the examples for computations of compensation payable and of the percentage of permanent total disability, the computation of the percentage of visual impairment must be applied to the provisions of the workmen's compensation act as they existed at the date of the injury.

(1) MAXIMUM AND MINIMUM LIMITS OF THE PRIMARY COORDINATE FACTORS OF VISION. In order to determine the various degrees of visual efficiency, (a) normal or maximum, and (b) minimum, limits for each coordinate function must be established; i.e., the 100% point and the 0% point.

(a) Maximum limits. The maximum efficiency for each of these is established by existing and accepted standards.

1. Central Visual Acuity. The ability to recognize letters or characters which subtend an angle of 5 minutes, each unit part of which subtends a 1 minute angle at the distance viewed is accepted as standard. Therefore a 20/20 Snellen or A.M.A. and a 14/14 A.M.A. are employed as the maximum acuity of central vision, or 100% acuity for distance vision and near vision respectively.

2. Field Vision. A visual field having an area which extends from the point of fixation outward 65 degrees, down and out 65 degrees, down 55 degrees, down and in 45 degrees, inward 45 degrees, in and

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up 45 degrees, upward 45 degrees, and up and out 55 degrees is accepted as 100% industrial visual field efficiency.

3. Binocular Vision. Maximum binocular vision is present if there is absence of diplopia in all parts of the field of binocular fixation, and if the 2 eyes give useful binocular vision.

(b) Minimum limits. The minimim limit, or the 0% of the coordinate functions of vision, is established at that degree of deficiency which reduces vision to a state of industrial uselessness.

1. Central Visual Acuity. The minimum limit of this function is established as the loss of light perception, light perception being qualitative vision. The practical minimum limit of quantitative visual acuity is established as the ability to distinguish form. Experience, experiment and authoritative opinion show that for distance vision 20/200 Snellen or A.M.A. Chart is 80% loss of visual efficiency, 20/380 is 96% loss, and 20/800 is 99.9% loss, and that for near vision 14/141 A.M.A. Reading Card is 80% loss of visual efficiency, 14/266 is 96% loss, and 14/560 is 99.9% loss. Table 1 shows the percentage loss of visual efficiency corresponding to the Snellen and other notations for distant and for near vision, for the measurable range of quantitative visual acuity.

2. Field Vision. The minimum limit for this function is established as a concentric central contraction of the visual field to 5 degrees. This degree of contraction of the visual field of an eye reduces the visual efficiency to zero.

3. Binocular Vision. The minimum limit is established by the presence of diplopia in all parts of the motor field, or by lack of useful binocular vision. This condition constitutes 50% motor field efficiency.

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