

ORDER OF

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by sections 101.01 to 101.25, Wis. Stats., the Department of Industry, Labor and Human Relations hereby repeals, recreates and adopts rules of the Wisconsin Administrative Code Section Ind 80.25 Loss of Hearing.

The rules attached hereto shall become effective on the first day of the month following publication in the Wisconsin Administrative Code as provided in section 227, Wis. Stats.

Section Ind 80.25 is repealed and recreated to read:

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 band analyzers and oscilloscopes, the latter particularly for impact-type noises. See Wisconsin Administrative 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 Wisconsin Administrative 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.

(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 Loss ASA	Per Cent of Compensable Hearing Impairment	Average Decibel Loss ANSI	Average Decibel Loss ASA	Per Cent of Compensable Hearing Impairment	Average Decibel Loss ANSI
15	0	25	49	51.	59
16	1.5	26	50	52.5	60
17	3	27	51	54.	61
18	4.5	28	52	55.5	62
19	6.	29	53	57.	63
20	7.5	30	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	63	72.	73
30	22.5	40	64	73.5	74
31	24.	41	65	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	74	88.5	84
41	39.	51	75	90.	85
42	40.5	52	76	91.5	86
43	42.	53	77	93.	87
44	43.5	54	78	94.5	88
45	45.	55	79	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

Right Ear - 500 - 25
1000 - 40
2000 - 55
Total - 120

Left Ear - 500 - 40
1000 - 50
2000 - 60
Total - 150

$120 \div 3 = 40$ db

$150 \div 3 = 50$ db

40 db = 22-1/2% impairment, right ear

50 db = 37-1/2% impairment, left ear

To determine bilateral percentage of impairment:

Multiply lesser loss, 22-1/2%, by 5 = 112-1/2%

Add greater loss

37-1/2%

150

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 Wisconsin Administrative Code chapter Ind 11, Register, July 1971, No. 187. The definitions in that chapter have been used in these recommendations.

Members of Medical Subcommittee:

Meyer S. Fox, M.D., Chairman

James H. Brandenburg, M.D.

Roger H. Lehman, M.D.

Carl Zenz, M.D.

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

ORDER OF THE
DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS
FINDING OF EMERGENCY

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by Sections 101.01 to 101.29 and 111.33 of the Wisconsin Statutes, the Department of Industry, Labor and Human Relations finds:

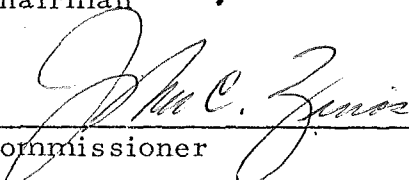
- (1) That the preservation of the public peace, health, safety and welfare necessitates putting a rule into effect prior to the time it could be put into effect if the Department were to comply with the notice, hearing, and publication requirements of Chapter 227 of the Wisconsin Statutes;
- (2) That on May 4, 1972 the Joint Committee for the Review of Administrative Rules of the Wisconsin Legislature voted 7-2 to approve a postponement of the effective date of Ind 88.20 from June 1, 1972 to September 1, 1972;
- (3) That on May 8, 1972 the Department adopted an emergency rule postponing the effective date of Ind 88.20 to September 1, 1972.
- (4) That on July 10, 1972 the Commissioners of the Department of Industry, Labor and Human Relations voted to take the necessary steps to repeal Ind 88.20;
- (5) That the procedure required by Chapter 227 of the Wisconsin Statutes for repealing administrative rules prevents the Department from repealing Ind 88.20 prior to September 1, 1972.


Now Therefore, the Department of Industry, Labor and Human Relations orders that Section Ind 88.20 is repealed.

Dated at Madison, Wisconsin this 7 day of August, 1972.

DEPARTMENT OF INDUSTRY, LABOR
AND HUMAN RELATIONS


Chairman


Commissioner


Commissioner