

Ind 12

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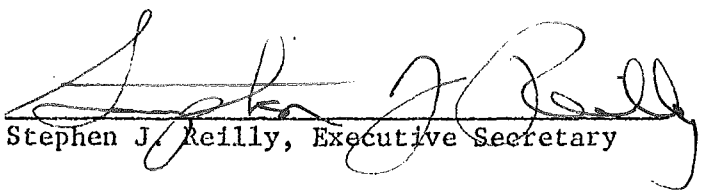
STATE OF WISCONSIN)
) SS
DEPARTMENT OF INDUSTRY,)
LABOR AND HUMAN RELATIONS)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Stephen J. Reilly, Executive Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said Department, do hereby certify that the attached rules to Wisconsin Administrative Code Chapter 12, Work Under Compressed Air, were adopted by the Department of Industry, Labor and Human Relations on January 24, 1972.

I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Capitol, in the City of Madison, this 25 day of January, A.D., 1972.


Stephen J. Reilly, Executive Secretary

ORDER OF

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section 101.01 to 101.29, Wis. Stats., the Department of Industry, Labor and Human Relations hereby amends, creates and adopts the rules of Wisconsin Administrative Code Chapter 12, Work Under Compressed Air.

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.

Ind 12.16 is amended to read:

Ind 12.16 Repetitive exposures. In the event it is necessary for an employe to be in compressed air more than 3 times in a 24-hour period, the air master shall be responsible for the establishment of methods and procedures of decompression applicable to repetitive exposure tables. (See repetitive exposure tables No. 3, 4 and 5 in appendix B.)

Subsection Ind 12.82(8) is amended to read:

(8) Periodic Reexamination. Each person reported by the physician to be physically qualified for employment in compressed air shall be reexamined by the physician within one year of the date of the preceding physical examination, or sooner as the physician may deem necessary, to determine whether or not he continues to be physically qualified for such work. A new recommendation as to the employability shall be prepared as provided for in subsection Ind 12.82(5). Forms SB-247 and SB-247-A shall be completed for this examination. Completed forms shall be submitted to the employer and the air master. Copies shall be kept in the retained physician's file.

Ind 12.84 title and (1) are amended to read:

Ind 12.84 Treatment of decompression illness and air embolism. (1) Treatment of decompression illness and air embolism shall be rendered promptly as directed by the retained physician. Recompression in the medical lock or working chamber shall be performed only at the direction of the retained physician. Breathable gases such as oxygen or helium/oxygen mixtures shall be administered only at the direction of the retained physician. Treatment for decompression sickness shall be carried out on U.S. Navy Low Pressure Oxygen Treatment tables V and VI (appendix D) or their equivalent as a minimum directed by the retained physician. Treatment for air embolism shall be carried out on U.S. Navy Low Pressure Oxygen Treatment tables 5A and 6A or their equivalent as a minimum directed by the retained physician.

Appendix D is created to read:

APPENDIX D

U.S. NAVY LOW PRESSURE OXYGEN TREATMENT TABLES

TABLE V

Method used when relief of symptoms is complete within 10 minutes at 27 pounds			
Depth (pounds)	Min.	Gas	Total Min.
27	20	O ₂	20
27	5	Air	25
27	20	O ₂	45
27-13.5	30	O ₂	75
13.5	5	Air	80
13.5	20	O ₂	100
13.5	5	Air	105
13.5-0	30	O ₂	135

For simple or "pain only" bends. If numbness, tingling or paralysis are present, use Table VI.

If other neurological symptoms are present or relief of "pain only" symptoms is not complete in 10 minutes at 27 pounds, use Table VI.

TABLE VI

Method used when relief of symptoms is not complete within 10 minutes at 27 pounds			
Depth (pounds)	Min.	Gas	Total Min.
27	20	O ₂	20
27	5	Air	25
27	20	O ₂	45
27	5	Air	50
27	20	O ₂	70
27	5	Air	75
27-13.5	30	O ₂	105
13.5	15	Air	120
13.5	60	O ₂	180
13.5	15	Air	195
13.5	60	O ₂	255
13.5-0	30	O ₂	285

For serious symptoms of bends such as numbness, tingling, paralysis or chokes. Use this table for all recurrences after treatment and for cases in which symptoms first appeared while the patient was decompressing (i.e., still under pressure).

EXPLANATION

Commence O₂ breathing prior to pressurization to 27 pounds--time schedules should be followed with care.

Compression: Rapid pressurization is desirable but do not exceed rate tolerated by patient. Pressurization time, usually 1-2 minutes, is not counted as time at 27 pounds. Do not halt the pressurization to verify a report of symptom relief.

Decompression: Depressurizations are continuous at uniform .445 pounds per minute. Do not compensate for slowing of the rate by subsequent acceleration. Do compensate if the rate is exceeded. If necessary, halt depressurization and hold pressure while ventilating the chamber.

Inside Tender: Tender routinely breathes chamber air. If treatment schedule is lengthened (see below) or if the treatment constitutes a repetitive exposure to compressed air for the tender, he must breathe O₂ for the final 30 minutes, from (27 pounds - Table V) (13.5 pounds - Table VI) to atmospheric pressure.

Relief of Symptoms: If completeness of relief is at all doubtful after 10 minutes O₂ breathing at 27 pounds, use the 285 minute schedule. If symptoms recur, fresh symptoms appear, or the patient's condition worsens, return to 27 pounds and use the 285 minute method.

A physician qualified in compressed air medicine can extend the 285 minute schedule with a fourth O₂ - air sequence (20 minutes O₂ - 5 minutes air) at 27 pounds, or a third air - O₂ sequence (15 minutes air - 60 minutes O₂) at 13.5 pounds or both.

Tables 5A and 6A for the treatment of air embolism.

TABLE 5A

PATIENT SYMPTOM FREE WITHIN 15 MINUTES

Pressure (psig)	Time (min.)	Breathing Media	Total Time (min.)
73.5	15*	Air	15
73.5-27	4	Air	19
27	20	O ₂	39
27	5	Air	44
27	20	O ₂	64
27-13.5	30	O ₂	94
13.5	5	Air	99
13.5	20	O ₂	119
13.5	5	Air	124
13.5-0	30	O ₂	154

*Total time will vary as function of this stop. Medical attendant should take time to accomplish a thorough physical examination, since the ensuing treatment is based on patient's physical status.

TABLE 6A

PATIENT SYMPTOM FREE WITHIN 30 MINUTES AND/OR RAPIDLY IMPROVING

Pressure (psig)	Time (min.)	Breathing Media	Total Time (min.)
73.5	30	Air	30
73.5-27	4	Air	34
27	20	O ₂	54
27	5	Air	59
27	20	O ₂	79
27	5	Air	84
27	20	O ₂	104
27	5	Air	109
27-13.5	30	O ₂	139
13.5	15	Air	154
13.5	60	O ₂	214
13.5	15	Air	229
13.5	60	O ₂	289
13.5-0	30	O ₂	319

STATE OF WISCONSIN
Department of Industry, Labor & Human Relations
Industrial Safety & Buildings Division
Post Office Box 2209
MADISON, WISCONSIN 53701

Name (Last Name, Middle Name, First Name)			Job Title
Address (Street & No.)			Present Job Location
(City)	(State)	(Zip Code)	

Since Your Last Physical Examination:	Yes	No
Have you had 1. Any illness (other than minor colds)?		
Have you had 2. Any operations?		
Have you had 3. Any industrial injuries?		
Have you had 4. Any hospitalizations?		
5. Have you begun the use of any drugs or medicines?		
6. Have you developed any allergies?		
7. Have you changed your habits regarding the use of Alcohol or Tobacco?		
8. Have you been subject to stuffiness or nasal discharge?		
9. Have you had any effects (bends) from working in compressed air?		

Explain any of the above questions answered yes.

List other compressed air jobs on which you have worked.

STATE OF WISCONSIN
Department of Industry, Labor & Human Relations
Industrial Safety & Buildings Division
Post Office Box 2209
MADISON, WISCONSIN 53701

NAME _____												
DATE _____		HEIGHT _____	WEIGHT _____	AGE _____	<input type="checkbox"/> + <input type="checkbox"/> -	GEN'L. APPEARANCE _____	BLOOD PRESS. _____	SYST / DIAST. _____	PULSE _____			
VISION	S OD 20 /	S OS 20 /	C OD 20 /	C OS 20 /	COLOR VISION _____			PUPILS _____				
EOM _____		FUNDUS OCULI _____			AUDIOMETER	250	500	1000	2000	3000	4000	5000
HEARING _____		EARDRUMS _____			RIGHT							
					LEFT							

CLINICAL EVALUATION			DESCRIBE EACH ABNORMALITY IN DETAIL. REFER TO ITEM NUMBER, IF ANY. IF NECESSARY, USE THE REVERSE SIDE OF THIS FORM AND EXTRA SHEETS, 8 1/2 X 11"
NORMAL	ABNOR- MAL		
		1. NOSE	
		2. THROAT	
		3. TONSILS	
		4. MOUTH	
		5. TEETH	
		6. GINGIVA	
		7. THYROID	
		8. SKIN	
		9. LYMPHATICS	
		10. THORAX	
		11. SYMMETRY	
		12. SPINE	
		13. HEART ACTION	
		14. HEART SOUNDS	
		15. LUNGS	
		16. INSPIRATION	
		17. EXPIRATION	
		18. RESPIR. MURMUR	
		19. ABDOMEN	
		20. EXTREMITIES	
		21. JOINTS	
		22. FEET	
		23. MUSCULAR SYS.	
		24. NERVOUS SYS.	
		25. REFLEXES	
		26. KJ	
		27. AJ	
		28. PLANTAR	
		29. RHOMBERG	
		30. JOINT MOBILITY	
		31. RT SHOULDER	
		32. LEFT SHOULDER	
		33. RT HIP	
		34. LEFT HIP	
		35. CHEST X-RAY	
		36. X-RAY RT SHOULDER	
		37. X-RAY LEFT SHOULDER	
		38. X-RAY RT HIP	
		39. X-RAY LEFT HIP	
		40. X-RAY RT KNEE	
		41. X-RAY LEFT KNEE	
		42. ECG (OVER AGE 40)	
NO	YES	43. HERNIA	
		44. VARICOCELE	
		45. PEIPH. VASC. DIS	
		46. SWELLING: FACE, ABDOMEN, LEGS	

VDRL _____	SICKLE CELL TRAIT _____	HCT _____	HGB _____	URINE ALBUMIN _____	SUGAR _____	SPEC. GRAV. _____
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BEGINNERS MEDICAL LOCK TEST _____ DATE _____ RE-EXAMINATION BY _____

PASSED FAILED M.D. _____

PHYSICIAN'S RECOMMENDATION _____ DATE _____ SIGNATURE _____

ACCEPT REJECT