WORKERS' COMPENSATION FUND

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1985 AUG -6 PM 3:30
SECRETARY OF STATE

ARCH A. MOORE, JR.
Governor

601 MORRIS STREET
CHARLESTON, WEST VIRGINIA 25301

MARY MARTHA MERRITT
Commissioner

August 6, 1985

NOTICE OF AGENCY APPROVAL AND SUBMISSION TO THE LEGISLATIVE RULE-MAKING REVIEW COMMITTEE

LEGISLATIVE RULE: Standards for Medical Examination in Occupational Pneumoconiosis Claims

The attached legislative rule constitutes the official rule approved by the Workers' Compensation Fund on August 6, 1985 and filed pursuant to law with the West Virginia Secretary of State and the Legislative Rule-Making Review Committee.

Mary Martha Merritt

Mary Martha Merritt
Commissioner

KEN HECHLER
Secretary of State

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Special Assistant

(Plus all the volunteer help we can get)

STATE OF WEST VIRGINIA
SECRETARY OF STATE
Charleston 25305

August 6, 1985

PROPOSED RULES

STATE REGISTER FILING

==========

AGENCY Workers' Compensation Fund

CONTACT PERSON William Mitchell PHONE 348-2580

TYPE OF RULE Legislative

TITLE OF RULE Standards for Medical Examination in Occupational Pneumoconiosis Claims

CHAPTER 23 ARTICLE 1 SERIES I

AUTHORITY 23-1-15

++++++++++

CHECK APPLICABLE ITEMS BELOW TO SHOW KIND OF ACTION BEING TAKEN

- [ ] NEW RULE
- [X] AMENDMENTS TO EXISTING RULE
- [ ] REPEAL OF EXISTING RULE

NOTE: ALL FILINGS REQUIRE ONLY ONE COPY, EXCEPT FINAL FILING OF RULES WHICH REQUIRES AN ORIGINAL AND A COPY.

- [ ] NOTICE OF HEARING
- [X] NOTICE OF AGENCY APPROVAL (legislative rules only)
- [ ] NOTICE OF AGENCY ADOPTION (interpretive & procedural rules only)
- [ ] FINAL FILING
- [ ] FIRST EMERGENCY FILING
- [ ] SECOND EMERGENCY FILING

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601 MORRIS STREET
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Governor

MARY MARTHA MERRITT
Commissioner

August 6, 1985

Mr. Ken Hechler
Secretary of State
State Capitol
Suite 157-K
Executive Office
Charleston, WV 25305

Re: Agency Approved Proposed
Legislative Rules
Amendment to Series I

Dear Mr. Hechler:

Enclosed herewith for filing in the State Register are Agency Approved Proposed Legislative Rules.

These rules are in the form of an amendment to Series I of the existing rules, being an additional section designated Section 20.8.

Emergency Rules were filed on May 3, 1985. Since that time, Public Hearings have been held and oral and written public comment has been received. A transcript of all comment received is enclosed.

Amendments to the original Emergency Rules are indicated by underscoring and strike-throughs. The amendments were based upon the public comment received and the experience realized through implementation of the Emergency Rules since May 3, 1985.

Amended Emergency Rules were filed on August 1, 1985. Those rules are identical in content to these proposed rules.

Thank you for your cooperation in this matter.

Very truly yours,

Mary Martha Merritt

Mary Martha Merritt
Commissioner

MMM:cm

Enclosures

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SECRETARY OF STATE

WORKERS' COMPENSATION FUND

ARCH A. MOORE, JR.
Governor

601 MORRIS STREET
CHARLESTON, WEST VIRGINIA 25301

MARY MARTHA MERRITT
Commissioner

August 6, 1985

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Standards for Medical Examination in Occupational Pneumoconiosis Claims

Type of Rule: X Legislative ___ Interpretive ___ Procedural

Agency: Workers' Compensation Fund Address: 601 Morris Street, Charleston, WV 25301

1. Effect of Proposed Rule	ANNUAL Increase	ANNUAL Decrease	FISCAL YEAR Current	FISCAL YEAR Next	FISCAL YEAR Thereafter
Estimated Total Cost	$ None	$ None	$ None	$ None	$ None
Personal Services					
Current Expense					
Repairs and Alterations					
Equipment					
Other					

2. Explanation of above estimates.

3. Objectives of these rules:

To establish written standards for medical examinations to be performed in connection with occupational pneumoconiosis claims.

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

Only the administrative cost of promulgating the rules.

B. Economic Impact on Political Subdivisions; Specific Industries; Specific groups of citizens.

None.

C. Economic Impact on Citizens/Public at Large.

None.

Mary Martha Merritt

Mary Martha Merritt
Commissioner

PHOTOCOPY OF FIRST PAGE OF RULES BEING AMENDED.

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Section 1. GENERAL

1.01 Scope

These rules and regulations are to provide for the general administration of the West Virginia Workmen's Compensation Fund.

1.02 Authority.

These regulations are issued pursuant to West Virginia Code, Chapter 23, (Michie 1973),

1.03 Effective Date.

These regulations were promulgated on December 5, 1975, and became effective January 5, 1976.

1.04 Filing Date.

These regulations were filed in the Office of the Secretary of State on December 5, 1975.

1.05 Definitions.

As used in these regulations:

(a) "Claimant" shall mean any individual who files an application for Workmen's Compensation benefits.

(b) "Filing" shall mean actual receipt in the office of the Commissioner.

(c) "Paid" shall mean the time the check is deposited in the mail or presented in person to the claimant, claimant's attorney or anyone acting in his behalf.

(d) "Receipt of . . . notice" shall be presumed to have occurred on the third day following the date of the notice. The next day (or the fourth day following the date of the notice) will be treated as the first day of the

Workers' Compensation Fund
Leg. Rule, 23-1
Series I, Sec. 20.8

Section 20.8. Standards for Medical Examination.

The following standards specify examination and evaluation criteria to guide the Occupational Pneumoconiosis Board in its examination and evaluation of claimants, and to guide other physicians and medical technicians who conduct examinations and evaluations of claimants on behalf of such claimants and their employers. These standards are established for the further purpose of ensuring that uniform procedures are used in administering and interpreting ventilatory function tests and arterial blood gas studies and that the best available medical evidence will be obtained in support of a claim for occupational pneumoconiosis benefits. The physician supervising any such testing and/or the technician administering any such testing will so indicate by signing the reports. Any report of test results submitted to the Occupational Pneumoconiosis Board must affirmatively state, as to each of the standards individually, the fact that the particular test or study was performed in compliance with that standard. In the event that any such report fails to affirmatively show compliance with these standards, the O.P. Board may disregard all or any part of such test or study or give such test or study such weight as the Board believes it deserves.

When two or more ventilatory function tests performed in reasonably close proximity in time produce differing but acceptable results, the Commissioner, at the request of the O.P. Board, may, because of the scientific nature of such testing and the permanent nature of the disease occupational pneumoconiosis, direct the parties to furnish additional evidence and/or order additional testing at the laboratory utilized by the O.P. Board or other laboratories, all for the purpose of determining whether any of the results is unreliable or incorrect or is clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

Occupational pneumoconiosis is a permanent disease which does not improve; consequently, when blood gas studies are performed and abnormal values are obtained and thereafter new blood gas studies are performed and normal or significantly higher values are further obtained, the Commissioner, at the request of the O.P. Board, may direct the parties to furnish additional evidence and/or order additional studies at the laboratory utilized by the O.P. Board or other laboratories, all for the purpose of determining whether any of the values is unreliable or incorrect or is clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

As used herein, the following terms shall have the meanings indicated:

1. FVC - Forced Vital Capacity - Volume of air that can be forcefully exhaled from the lungs after a maximal inspiration.

2. FEV - Forced Expiratory Volume - Same as FVC.

3. FEV_1 - Forced Expiratory Volume in one second - Volume of air that can be exhaled forcefully from the lungs in one second after a maximal inspiration.

4. FEV_3 - Forced Expiratory Volume in three seconds - Volume of air that can be exhaled forcefully from the lungs in three seconds after a maximal inspiration.

5. FEV_1/FEV - Forced Expiratory Volume (timed) to Forced Expiratory Volume - A ratio expressed as a percentage.

6. MVV - Maximal Voluntary Ventilation - The volume of air that can be exchanged over a unit period of time, usually 12 to 15 seconds.

7. BTPS - Body Temperature, Ambient Pressure, saturated with water.

8. Kpm - Kilopond Meter - The amount of work required to lift one kilogram one meter.

9. NIOSH - National Institute ~~of~~ for Occupational Safety and Health.

10. BOARD - West Virginia Occupational Pneumoconiosis Board.

VENTILATORY FUNCTION TESTS

(I) Instruments to be used for the administration of ventilatory function tests ~~must be approved by NIOSH and must~~ should conform to the following criteria:

(A) The instrument must be accurate within ±50 ml or within ±3 percent of reading, whichever is greater.

(B) The instrument must be capable of measuring vital capacity from 0 to 7 liters BTPS.

(C) The instrument must have a low inertia and offer low resistance to airflow such that the resistance to airflow at 12 liters per second must be less than 1.5 cm H_2O/liter/second.

(D) The Zero time point for the purpose of timing the FEV_1 must be determined by extrapolating the steepest portion of the volume-time curve back to the maximal inspiration volume or by an equivalent method.

(E) Instruments incorporating measurements of airflow to determine volume must conform to the same volume accuracy stated in paragraph (I) (A) when ~~presented~~ present with flow rates from at least 0 to 12 liters per second.

(F) The instrument or user of the instrument must ~~have a means of properly correcting volumes~~ correct volumes to body temperature saturated with water vapor (BTPS) under conditions of varying ambient spirometer temperatures and barometric pressures.

(G) The instrument used must provide a tracing of either flow versus volume or volume versus time during the entire forced expiration and volume versus time during the MVV Maneuver. Such tracing must be furnished to the Board with the test results. No results will be considered by the Board unless they are accompanied by the corresponding tracings. A tracing is necessary to determine whether the subject has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the requirement of paragraph (I) (A).

(H) The instrument must be capable of accumulating volume for a minimum of 10 seconds after the onset of exhalation.

(I) The forced expiratory volume in 1 second (FEV_1) measurement must comply with the accuracy requirements stated in paragraph (I) (A); that is, the FEV_1 must be accurately measured to within $\pm$50 ml or within $\pm$3 percent of reading, whichever is greater.

(J) The instrument must be capable of being calibrated in the field with respect to the FEV_1. This calibration of the FEV_1 may be done either directly or indirectly through volume and time base measurements. The volume calibration source must provide a volume displacement of at least 3 liters and must be accurate to within $\pm$30 ml.

(K) For measuring maximum voluntary ventilation (MVV), the instrument must have a response which is flat within $\pm$10 percent at flow rates up to 12 liters per second over the volume range. The time for exhaled volume intergration or recording must be no less than 12 seconds and no more than 15 seconds. The indicated time must be accurate to within $\pm$3 percent. A recording of the spirometer tracing is required, and the volume sensitivity must be such than 10 mm or more deflection corresponds to 1 liter volume.

(II) The administration of ventilatory function tests must conform to the following criteria:

For ascertainment of the FEV_1 and FVC, a nose clip ~~must~~ or alternative should be used. The procedures must be explained in simple terms to the subject who shall be instructed to loosen any tight clothing and sit or stand in front of the apparatus. Although the subject may sit or stand, care should be taken on repeat testing that the same position is used. Particular attention must be given to insure that the subject's chin is slightly elevated with the neck slightly extended. The subject must be instructed to make a full inspiration, either from the spirometer or the open atmosphere, ~~using a normal breathing pattern~~ and then blow into the apparatus, without interruption, as hard, fast, and completely as possible.

At least three forced expirations must be carried out. During the maneuvers, the subject must be observed for compliance with instructions. The expirations must be checked visually for reproducibility by examining the flow-volume or volume-time tracings. The effort shall be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the subject:

(A) Has not reached full inspiration preceding the forced expiration; or

(B) Has not used maximal effort during the entire forced expiration; or

(C) Has not continued the expiration for at least 5 seconds or until an obvious plateau in the volume-time curve has occurred; or

(D) Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.); or

(E) Has coughed or closed his glottis; or

(F) Has an unsatisfactory start of expiration, one characterized by excessive hesitation (or false starts), and therefore did not allow back extrapolation of time 0 (extrapolated volume on the volume-time tracing must be less than 10 percent of the FVC); or

(G) Has an excessive variability between the three satisfactory curves. The variation between the two largest FEV_1's of the three satisfactory tracings should not exceed 7 percent of the largest FEV_1 or 100 ml, whichever is greater.

(H) Predicted values are derived from Kory's Nomogram.

(III) For ascertainment of the MVV, the subject must be instructed before beginning the test that he or she will be asked to breathe as deeply and as rapidly as possible for approximately 15 seconds.

The test ~~must~~ may be performed with the subject in ~~the~~ either a sitting or standing position~~, unless the subject has some medical condition necessitating a different position~~. Care shall be taken on repeat testing that the same position is used. The subject ~~must~~ should breathe normally into the mouthpiece of the apparatus for 10 to 15 seconds to become accustomed to the system. The subject ~~must~~ should then be instructed to breathe as deeply and as rapidly as possible and shall be continually encouraged during the remainder of the maneuver. The subject shall continue the maneuver for 12 seconds. The subject ~~must~~ should be allowed to rest between maneuvers. At least three MVV's must be observed to determine if there was compliance with instructions. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:

(A) Has not maintained consistent effort for at least 12 to 15 seconds; or

(B) Has coughed or closed his glottis; or

(C) Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.); or

(D) Has an excessive variability between the three satisfactory curves. The variation between ~~the two largest MVV's of~~ the three satisfactory tracings must not exceed 10 percent and should approximate forty times the greatest FEV_1 volume.

(IV) A calibration check must be performed on the instrument each day before use, using a volume source of at least three liters, accurate to within ± 1 percent of full scale. The room air in the syringe must be introduced into the spirometer once with a flow rate of approximately 0.5 liters per second (six seconds emptying time with a 3-liter syringe) and once with a higher flow rate of approximately 3.0 liters per second (one second emptying time with a 3.0 liter syringe). The volume measured by the spirometer must be between 2.90 and 3.10 liters for both trials. Accuracy of the time measurement used in determining the FEV_1 must be checked using the manufacturer's stated procedure and must be within ± 3 percent of actual. The procedure described herein must be performed as well as any other procedures suggested by the manufacturer of the spirometer being used.

(V) (A) The first step in evaluating a spirogram for the FEV and FEV_1 shall be to determine whether or not the subject has performed the test properly or as described in (II) (FEV) and the forced expiratory volume (A). From the three satisfactory tracings, the forced expiratory volume in one second (FEV_1) must be measured and recorded. The largest observed FEV_1 must be used in the analysis, corrected to BTPS.

(B) Only MVV maneuvers which demonstrate consistent effort for at least 12 seconds shall be considered acceptable. The largest accumulated volume for a 12-second period corrected to BTPS and multiplied by five shall be reported as the MVV.

ARTERIAL BLOOD GAS STUDIES

(I) In order to ensure comparability of data obtained in arterial blood studies, the following guidelines ~~must~~ should be observed:

(A) The ~~periarterial nerve plexus~~ puncture site should be infiltrated with a local anesthetic to minimize pain and arterial spasm.

(B) The barrel of the syringe used to draw the blood sample should be wetted with heparin and the excess heparin must be expelled just prior to obtaining the blood sample.

(C) The subject ~~must~~ should be allowed to rest for fifteen (15) minutes prior to beginning the study.

(D) Resting blood samples ~~must~~ should be drawn with the subject in the sitting position.

(E) On occasions when the subject is unable to be exercised due to physical impairments; i.e., heart disease, artificial leg, etc., a resting sample of arterial blood ~~must~~ may be drawn by direct puncture with a 22 20-25-gauge needle and a heparinized syringe.

(F) Blood samples must be discarded if contaminated by an air bubble.

(G) All blood samples ~~must be iced and~~ should be analyzed immediately ~~(in~~ less than ten minutes). If not, the sample should be iced in water. If the analysis is not performed within ten minutes, the metabolic activity of the cells in the blood will cause the $p0_2$ to fall and the $pC0_2$ to rise.

(H) If an exercise sample is to be obtained, a plastic catheter must be inserted into the radial or brachial artery for both the resting as well as the ~~arterial~~ exercise sample.

(I) Exercise must be accomplished by having the subject pedal the bicycle ergometer at a rate of 50-60 revolutions per minute against a resistance of 75 Watts or 450 Kilopond Meters (Kpm) per minute for a period of five minutes. ~~If the subject is unable for some physical reason to ride the bicycle, then~~ a A treadmill may be used, and when used, exercise must be done at 2 mph and 10% grade. During the last twenty seconds of the fifth minute of exercise, ~~another blood~~ the exercise sample must be drawn into a heparinized syringe and the pulse and respiration rates noted. If an added level of exercise is performed, this must be done at 120 Watts on the bicycle, or on the treadmill at 2.5 mph and 12% grade. Exercise testing beyond the level set forth herein shall be considered to be measurements of physical conditioning rather than of blood gas transfer abnormalities due to occupational pneumoconiosis. The EKG leads ~~must~~ are then ~~be~~ removed and the subject allowed to sit on a chair while the catheter is removed. Pressure must be held at the site of arterial cannulation for five minutes, and if there is no bleeding or hematoma present, a compression bandage must be placed on the radial artery ~~and wrist~~. This bandage must be left in place for four hours. After about fifteen minutes of observation, the subject will be allowed to leave. The arterial blood sample ~~must~~ should be drawn while exercise continues, not following cessation of exercise.

(J) EKG monitoring with a single lead should take place during exercise to determine the heart rate. It should be noted that this is not an EKG Stress Test.

(K) The report should indicate the place, date and time of the study, altitude of the testing site and barometric pressure at the testing site on the day of the testing, name and claim number of the subject, name of any assisting personnel, name and signature of the supervising physician, duration and type of exercise (if performed), pulse rate at the time the blood sample was drawn, and whether analysis equipment was calibrated before each test.

(L) It is recognized that arterial blood gas studies done in laboratories throughout this state are obtained at different altitudes. Only by "standardizing" for altitude can an equitable assessment be made of impairment when values of arterial oxygen are being measured at remarkably different altitudes. Therefore, the results reported from laboratories ~~must~~ should include the name of the laboratory and the date and time of the testing, altitude of the laboratory and barometric pressure at the laboratory on the day the samples were collected. The O.P. Board will evaluate the arterial blood gas values by converting those values to the average altitude of Charleston, West Virginia. For this purpose, it shall be sufficient to add 5 mmHg to each arterial oxygen tension for each 1,000 feet or fraction thereof that the testing laboratory is located above the average altitude of Charleston, because the relationship of barometric pressure (Altitude) and alveolar oxygen is approximately linear up to 4,000 feet as long as the subject breathes room air.

As an example, Bluefield is located approximately 2,600 feet above sea level. Charleston is approximately 600 feet above sea level. Thus, arterial oxygen values obtained in Bluefield should have 10 mmHg added to them before applying the table to them to obtain "percent impairment". The calculations are as follows:

Bluefield (2,600 ft.) - Charleston (600 ft.)

= 2,000 ft. divided by 1,000 = 2.0 X 5 mmHg

per 1,000 feet altitude = 10 mmHg.

TABLE FOR IMPAIRMENT OF PULMONARY FUNCTION

The following table will be used as an indicator of impairment of pulmonary function if any of the acceptable values appear in the percentage of impairment column:

% IMPAIRMENT	0	10	15	20	25	30	40	50	60	TOTAL
FVC % PRED.	80	8075	7570	7067	6564	6061	5558	5055	4552	4050
$FEV_1.0$ % PRED.	75	73	70	7067	6564	6061	5558	5055	4552	4050
$FEV_1.0/FVC$	75	73	70	6567	6064	5561	5056	4551	4048	3545
MVV^1% PRED.	80	8075	7570	7067	6564	6061	5558	5055	4552	4050
~~$p0_2$ (RESTING)~~	~~75~~	~~73~~	~~70~~	~~68~~	~~65~~	~~60~~	~~55~~	~~53~~	~~50~~	~~50~~

$PaCO_2$	PaO_2 VALUES EQUAL TO OR LESS THAN									
30 or below	85	81	78	75	73	70	68	67	66	65
31	84	80	77	74	72	69	67	66	65	64
32	83	79	76	73	71	68	66	65	64	63
33	82	78	75	72	70	67	65	64	63	62
34	81	77	74	71	69	66	64	63	62	61
35	80	76	73	70	68	65	63	62	61	60
36	79	75	72	69	67	64	62	61	60	59
37	78	74	71	68	66	63	61	60	59	58
38	77	73	70	67	65	62	60	59	58	57
39	76	72	69	66	64	61	59	58	57	56
40 or above	75	71	68	65	63	60	58	57	56	55

Exercise $p0_2$ values that rise above the resting $p0_2$ values will indicate a lesser degree of impairment of pulmonary function, and if they are less than the resting values will indicate a greater degree of impairment of pulmonary function.

The results of any medically acceptable tests or procedures reported by a physician which are not addressed in this table but which tend to demonstrate the presence or absence of pneumoconiosis or sequela of pneumoconiosis or the presence or absence of a respiratory pulmonary impairment may be submitted and given appropriate consideration (Airway Resistance, Ear ~~Oxymetry~~ Oximetry, DLCO and A-a gradient, etc.). It is also important that the O.P. Board use all clinical history and physical findings that would enhance or detract from any percentage of impairment in the above table.

ANALYSIS OF PROPOSED LEGISLATIVE RULES

Agency: Workers' Compensation Fund

Subject: Standards for Medical Examination in Occupational Pneumoconiosis Claims

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PERTINENT DATES

Filed for public hearing: May 3, 1985
Date of public hearing: May 30, June 14, and June 21, 1985
Filed following public hearing: August 6, 1985
Filed LRMRC: August 6, 1985
Filed as emergency: May 3, 1985

ABSTRACT

The proposed rule is an amendment to existing rules formerly filed by the Commissioner of the Workers' Compensation Fund. The amendment adds a new section, designated Section 20.8, to Series I.

The proposed new section deals with standards to be utilized by the the Occupational Pneumoconiosis Board, a statutory body created under the provisions of W.Va. Code, §23-4-8a. The Board consists of five licensed physicians, appointed by the Comissioner of Worker's Compensation. The function of the Board is to determine all medical questions relating to compensation for occupational pneumoconiosis under the direction and supervision of the Commissioner.

The new Section 20.8 proposes standards for the examination and evaluation of claimants for occupational pneumoconiosis, so as to assist the Occupational Pneumoconiosis Board in its consideration of such examination and evaluation. The standards also seek to insure "that uniform procedures are used in administering and interpreting ventilatory function tests and arterial blood gas studies and that the best available medical evidence will be obtained in support of a claim for occupational pneumoconiosis benefits."

The proposed rule authorizes the Commissioner, at the request of the Occupational Pneumoconiosis Board, to acquire additional evidence or order additional studies when testing produces differing but acceptable results or inconsistent results.

New Section 20.8 uses a number of technical terms or the abbreviations for such terms, and sets out definitions or explanations for most of the technical terms utilized.

Following the definitions, the remainder of Section 20.8 is broken into three unnumbered portions or subsections, each containing several subdivisions that are numbered with roman numerals.

In that portion of Section 20.8 dealing with Ventilatory Function Tests, Subdivision (I) sets forth the standards for ventilatory function tests in terms of the instruments to be used.

Subdivision (II) sets forth standards for administering ventilatory function tests.

Subdivision (III) sets forth standards for determining maximal voluntary ventilation (MVV), which is the volume of air that can be exchanged over a unit period of time.

In the portion of Section 20.8 dealing with arterial blood gas studies, Subdivision (I) prescribes the guidelines under which a blood sample must be taken. It also requires the testing laboratory to provide information as to the altitude of the testing site and the barometric pressure so that an adjustment can be made for the difference in altitude between the testing site and the average altitude of Charleston, West Virginia.

The final portion of Section 20.8 contains a table which is an indicator used to convert values obtained from testing into a percentage of impairment. Further, this portion of the proposed rule authorizes a consideration by the Board of the results of any medically accceptable tests or procedures reported by a physician which are not addressed in the table.

AUTHORITY

Statutory authority: W.Va. Code, §23-1-13, dealing with rules of procedure and evidence, reads as follows:

> The commissioner shall adopt reasonable and proper rules of procedure, regulate and provide for the kind and character of notices, and the service thereof, in cases of accident and injury to employees, the nature and extent of the proofs and evidence, the method of taking and furnishing the same to establish the rights to benefits or compensation from the fund hereinafter provided for, or directly from employers as hereinafter provided, as the case may require, and the method of making investigations, physical examinations and inspections, and prescribe the time within which adjudications and awards shall be made [emphasis added].

ANALYSIS

I. HAS THE AGENCY EXCEEDED THE SCOPE OF ITS STATUTORY AUTHORITY IN APPROVING THE PROPOSED LEGISLATIVE RULE?

In addition to the statutory authority of the Commissioner, under W.Va. Code, §23-1-13, to determine the method of making physical examinations, another section of the Code shows a clear intent of the part of the Legislature that the Commissioner and the Board establish methodology for evaluating claims for occupational pneumoconiosis. W.Va. Code, §23-1-17 requires the Commissioner and the Board, in their annual report, to include "an explanation of the diagnostic techniques used by the Occupational Pneumoconiosis Board and all examining physicians to determine the presence of the disease, the extent of impairment attributable thereto, [and] a description of the scientific support for such techniques. . ."

II. IS THE PROPOSED LEGISLATIVE RULE IN CONFORMITY WITH THE INTENT OF THE STATUTE WHICH THE RULE IS INTENDED TO IMPLEMENT, EXTEND, APPLY, INTERPRET OR MAKE SPECIFIC?

Yes. See paragraph I above.

III. DOES THE PROPOSED LEGISLATIVE RULE CONFLICT WITH OTHER CODE PROVISIONS OR WITH ANY OTHER RULE ADOPTED BY THE SAME OR A DIFFERENT AGENCY?

There is an apparent conflict with the Code with regard to the procedure for ordering additional testing or studies. The proposed rule would authorize the Commissioner to order such additional testing or studies, at the request of the Occupational Pneumoconiosis Board, "for the purpose of determining whether any of the results is unreliable or incorrect or is clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis."

This portion of the proposed rule is apparently a response by the Commissioner to the decision of the West Virginia Supreme Court of Appeals in Javins v. Workers' Compensation Commissioner, W.Va., 320 S.E.2d 119 (1984). In that case, the Court held that when conflicting findings or awards are presented to the Workers' Compensation Appeal Board, those findings or awards indicating the highest degree of impairment, which are not otherwise shown, through explicit findings of fact by the Appeal Board, to be unreliable, incorrect, or clearly attributable to some other identifiable disease or illness, are presumed to accurately represent the level of pulmonary impairment attributable to occupational pneumoconiosis.

Rather than accepting the findings indicating the highest degree of impairment, the Commissioner would propose to order additional tests or studies when there are differing but acceptable results in ventilatory function tests, or when several blood gas studies conflict.

A problem arises because of the language of W.Va. Code, §23-4-8, which authorizes the Commissioner to order a claimant to appear for examination before a medical examiner or examiners selected by the Commissioner. This authority to order further examinations is expressly limited to claimants of compensation "for a personal injury other than occupational pneumoconiosis. . ." That same code section provides, in the case of a claim based on pneumoconiosis, that "the commissioner shall have the power, after due notice to the employer, and whenever in his opinion it shall be necessary to order a claimant to appear for examination before the occupational pneumoconiosis board hereinafter provided." Thus, the Legislature, in enacting W.Va. Code, §23-4-8, did not authorize the Commissioner to order a pneumoconiosis claimant to undergo an examination except before the Board. And under the provisions of W.Va. Code, §23-4-8b, the Board can appoint a qualified specialist in the field of respiratory disease to examine the claimant on behalf of the Board, but only in those cases where a licensed physician makes affidavit that the claimant is physically unable to appear before the Board.

IV. IS THE PROPOSED LEGISLATIVE RULE NECESSARY TO FULLY ACCOMPLISH THE OBJECTIVES OF THE STATUTE UNDER WHICH THE PROPOSED RULE WAS PROMULGATED?

Yes. Standards or guidelines for examining and evaluating claimants was clearly contemplated by the Legislature when enacting the Workers' Compensation laws.

V. IS THE PROPOSED LEGISLATIVE RULE REASONABLE, ESPECIALLY AS IT AFFECTS THE CONVENIENCE OF THE GENERAL PUBLIC OR OF PERSONS AFFECTED BY IT?

There would appear to be nearly unanimous agreement among the persons who participated in the public hearing on the proposed rule that there is a need to standardize examination and evaluation criteria. However, a considerable portion of the public comment received on the proposed rule was critical of the proposed adjustment of results from arterial blood gas studies done in laboratories throughout the state at different altitudes. The Commissioner proposes to add 5mmHg to each arterial oxygen tension or fraction thereof that the testing laboratory is located above the average altitude of Charleston. Such adjustment would necessarily be detrimental to claimants tested at higher altitudes, and some persons have opposed this altitude adjustment, advocating either a lesser adjustment or no adjustment at all. Whether or not the proposed altitude adjustment is reasonable is a policy decision to be made by the Legislative Rule-making Review Committee and the Legislature.

An additional policy decision must be made with regard to whether or not the values proposed in the "Table for Impairment of Pulmonary Function" are reasonable and proper. (It should be noted that following the

public hearings, the tables were modified. Old and new values resulting from this modification are indicated in the proposed rule by strike-throughs and underlining.)

VI. CAN THE PROPOSED LEGISLATIVE RULE BE MADE LESS COMPLEX OR MORE READILY UNDERSTANDABLE BY THE GENERAL PUBLIC?

The proposed rule contains numerous medical or technical terms which would be readily understandable to a physician or medical technician, but incomprehensible to a member of the general public. However, it is difficult see how the rule could be made less complex or more readily understandable by the general public.

VII. WAS THE PROPOSED LEGISLATIVE RULE PROMULGATED IN COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 29A, ARTICLE 3 AND WITH ANY REQUIREMENTS IMPOSED BY ANY OTHER PROVISION OF THE CODE?

The proposed Section 20.8 does not comply with the legislative rule of the Secretary of State entitled "Standard Size and Format for Rules and Related Documents Filed in the Secretary of State's Office" which were filed on April 15,1985, as amended by a filing made on September 6, 1985. Specifically, the proposed rule of the Commissioner does not follow the requirements for indentation or section numbering.

WORKERS' COMPENSATION FUND

601 MORRIS STREET
CHARLESTON, WEST VIRGINIA 25301

ARCH A. MOORE, JR.
Governor

MARY MARTHA MERRITT
Commissioner

August 9, 1985

WRITTEN PUBLIC COMMENT

RECEIVED DURING THE COMMENT PERIOD

PERTAINING TO PROPOSED RULES

REGARDING THE ADMINISTRATION OF THE

COAL-WORKERS' PNEUMOCONIOSIS FUND

MACK ENERGY COMPANY
P. O. Box 148 • Union Furnace, Ohio 43158

July 18, 1985

Workers' Compensation Fund
601 Morris Street
Charleston, West Virginia 25301

Re: Written Comments on Proposed Rule: Administration of the Workers' Pneumoconiosis Fund

Dear Sirs:

We do not know the history of the West Virginia Pneumoconiosis Fund rules, assuming that all the rules were originated for a specific reason, and we do not understand the logic of Rule 2.8. on page 6. Renewals Required.

The renewal requirement could be devistating if, for some reason it was missed and the form not completed by March 1. It reminds us of the old Federal requirement that the I. R. S. had for Sub Chapter S Corporations. The I. R. S. had to be notified when there was a change in the stockholders of a Sub Chapter S Corporation. If the taxpayer did not comply within the specified time, the election was lost for the next five years. The rule was finally changed because so many people were effected by the rule when they did not know they were in the wrong and did not want to revoke the Sub Chapter S election.

We think that Rule 2.8. should either be deleted or changed to read that coverage will continue until it is cancelled. The employer (subscriber) did elect the coverage initially! Changing the requirement could decrease the annual paperwork requirements made necessary because of this rule. Because the Pneumoconiosis program is a Federal program and we know of at least one other state that does not require the annual renewal, we are assuming that for some reason West Virginia added this requirement.

It almost sounds like a rule that was made up to try to catch the employer, instead of help them.

Yours truly

Jerry E. Domer
Secretary Treasurer

TONEY'S BRANCH COAL COMPANY
P. O. Box 865
BECKLEY, WEST VIRGINIA 25802-0865
304/252-5064

July 12, 1985

Mary Martha Merritt
Commissioner - Worker's Compensation Fund
601 Moris Street
Charleston, West Virginia 25301

In re Administration of Coal-Workers' Pneumoconiosis Fund

Dear Mrs. Merritt:

We are pleased that the Worker's Compensation Fund has revised the pneumoconiosis program to more equitably address the situation as it exists. Our overall opinion of the proposed rules is positive; however, we believe that the program can be made more responsive in the following areas:

1. The proposed regulations are not clear as to what existing subscribers would do as far as continuing coverage in effect at June 30, 1985. Section 2 indicates what must be done to subscribe to the Fund but we believe these requirements should be waived for existing subscribers. Section 2, C-7 also indicates that information may be audited at the expense of the operator. We feel that it is a proper function of the Fund to audit as necessary information submitted to the Fund at Fund's expense not the operators.

2. Section 10 - Transfers. This section indicates that in certain types of transfers, personal guarantees of the transferor, its officers or principal stockholders may be required. We feel that this should be deleted, because if the Fund is truly going to be operated as an "insurance" type basis, then premiums should reflect the anticipated losses and should not unduly burden the transfer of companies. Further, as written, the Fund would have great latitude in requiring guarantees in one instance and not in another.

We also are concerned that there is not sufficient incentive in the proposed regulations for a company to oppose the award of a claim which may not be justified. If a company has a short life span, it appears that it would be less expensive for them to agree to a claim as opposed to protesting it. We view this as a potentially expensive problem, which would inhibit the future financial soundness of the Fund.

We certainly hope that you will see fit to address these issues in the final regulations.

Very truly yours,

Thomas J. Brewster

Thomas J. Brewster
Secretary-Treasurer

TJB/wwj

Virginia Crews Coal Company
770 Stewart Street
P. O. Box 1216
Welch, West Virginia 24801
Tel: (304) 436-8451
TWX: 7109388294 VCCC WELC

July 25, 1985

Mary Martha Merritt, Commissioner
W. Va. Coal Workers' Pneumoconiosis Fund
601 Morris Street
Charleston, WV 25301

Dear Commissioner:

On June 24, 1985, certain emergency rules relative to the administration of the Coal Workers' Pneumoconiosis Fund were issued, replacing the previous regulations effective as of July 1, 1985. Virginia Crews Coal Company, by this letter, desires to formally submit its comments to be considered and hereby protests specifically to Section 9.3, which prohibits retroactive refunds of premiums for employers withdrawing from the Fund.

We feel that employers should be allowed to withdraw and receive retroactive refunds of premiums paid, as this has been the prior and customary practice of the Fund. This course of action has been allowed to other companies, and the same privilege should be permitted at least for other current members of the Fund.

We, therefore, respectfully disagree with the Commissioner's decision and feel that current subscribers who would pursue self-insurance retroactively should be given the opportunity to do so under the same guidelines of the previous regulations.

We would like to request that consideration be given at least to granting an extension of time, so that employers who are interested in withdrawing from the Fund and self-insuring retroactively would have ample time to carry out such plans. The Commissioner's attention to our comments is highly appreciated.

Sincerely,

Josef Ehrengruber, President

JE/cds

Philip D Brick
Director, Public Affairs

Pickands Mather

Pickands Mather & Co.
1100 Superior Avenue
Cleveland OH 44114

July 29, 1985

Ms. Mary Martha Merritt, Commissioner
Workers' Compensation Fund
601 Morris Street
Charleston, West Virginia 25301

Re: Administration of the Coal-Workers' Pneumoconiosis Fund

Dear Commissioner:

We have the following comments on subject rule:

Section 2.5

There are no guidelines or standards for determining the amount of the deposit nor a requirement that the deposit be equitable among participants. Furthermore, there is no provision for review of increases or decreases in the deposit amount.

Section 2.6

There are no guidelines or standards provided to determine the effective date of coverage and no way to prevent arbitrary decisions by the Fund nor any provisions for review of those decisions.

Section 2.7

There is no provision for credit for the deposit and premium already paid. There is also no provision for a review of the Fund's decision on information submitted.

Section 3.2

The clause providing the potential for retroactive liability makes financial planning for contributions to the Fund impossible.

Section 4.3

In the first sentence, the word "new" should be added so that it reads: "The new subscriber's experience . . ."

Section 6.1 - A

On its own, this is an improvement over the previous rules in that the average used is only for the previous four quarters instead of the previous three years. We still feel, however, that the employer is unfairly punished in a total shutdown situation.

Section 9.1

When tied in with Section 6.1 - A, the employer is exposed to paying higher premiums until such time as the Fund receives notification of release by the Department of Labor.

Section 9.2

We object to the implication of this provision which denies protection from adjustment for retroactive laws for an employer who elects to withdraw from the Fund.

Section 9.3

The employer is unfairly penalized once qualified for withdrawal since the Fund will not refund unearned premiums or deposits until future prospective rate adjustments have been satisfied. No provision is made for the length of time that the Fund is able to hold the funds, in effect denying the opportunity by the employer to earn money on those funds.

Section 10.1

This section places a restriction on the sale of stock of a company since prior approval of the new organization is needed in order to transfer coverage.

If you would like to discuss these comments further, please contact me at 216/694-5414.

Very truly yours,

PICKANDS MATHER & CO.

Philip D. Brick
Director, Public Affairs

PDB/sw

PAULEY, CURRY, STURGEON & VANDERFORD
LAWYERS

KELLUM D. PAULEY
ARDEN J. CURRY
THOMAS H. VANDERFORD, IV
JAMES M. STURGEON, JR.
ARDEN J. CURRY, II
DAVID K. SCHWIRIAN

100 KANAWHA BOULEVARD, WEST
P. O. BOX 2786
CHARLESTON, WEST VIRGINIA 25330

TELEPHONE
(304) 342-6000

July 30, 1985

Mr. Bill Mitchell
W.Va. Coal Workers
Pneumoconiosis Fund
601 Morris Street
Charleston, WV 25301

Re: W.Va. Emergency Rules
Coal Workers Pneumoconiosis Fund

Dear Mr. Mitchell:

This letter will confirm our telephone conversation this date. As we discussed, the time period for filing comments to both the Emergency and Permanent Coal Workers Pneumoconiosis Fund Rules and Regulations has now expired. However, you have graciously allowed me the opportunity to file comments at this point in time due to a recent discovery of what I consider to be serious problems with your proposed Rules and Regulations.

This office represents several small coal companies in the State of West Virginia whose corporate officers are actively involved in the mining and processing of coal. Consequently, they are exposed to the hazards of Coal Workers Pneumoconiosis and are insured through the West Virginia Coal Workers Pneumoconiosis Fund. Due to the fact that these corporate officers are exposed to the hazards of Coal Workers Pneumoconiosis, they are not permitted to opt out of the West Virginia Coal Workers Pneumoconiosis Fund insurance program.

In reviewing your Emergency and proposed Permanent Rules, it appears that your premium rates, after taking into consideration the subscriber's experience, are based upon gross payroll figures. Consequently, there is no cap or upper limit figure used when determining gross payroll for corporate officers or partners' salaries. Under the regular workers' compensation rate structure, there is presently in place a cap of approximately $24,000 for partners or corporate officers' salaries in determining premium rates. My clients are seriously concerned with the lack of an upper limit figure under your Emergency and proposed Permanent Rules for the Coal Workers Pneumoconiosis Fund.

As you are well aware, the Federal government, in establishing benefit rates for pneumoconiosis, sets those rates based upon Federal income levels. The benefits rate have nothing whatsoever to do with salaries earned by individuals working at mines. Consequently, without an upper limit cap for corporate officers or partners' salaries, your Emergency and proposed Permanent Rules cause a disproportionate charge for the value of insuring these particular individuals.

Through this letter I respectfully request that changes be made, both in your Emergency and proposed Permanent Rules, setting a cap or upper limit for determining gross payroll based upon corporate officers or partners' salaries. Placing such a limit on these salaries should not in any manner impair the integrity of the Coal Workers Pneumoconiosis Fund. Instead, it will have the effect of avoiding penalization of corporate officers or partners in those years when they earn a salary above the cap that should be established under your Regulations.

If at any time prior to the promulgation of your Permanent Rules you would like to sit down and discuss this matter with either me or my clients, we are more than willing to make ourselves available at your convenience. I appreciate your time and consideration.

Yours very truly,

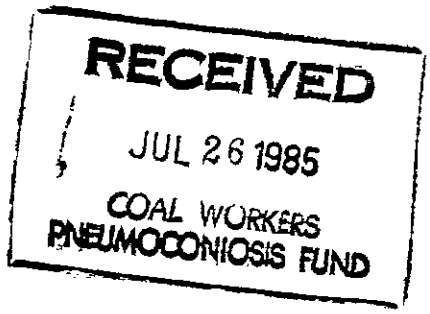
Arden J. Curry, II

AJC,II/mcs

Employers Service Corporation

Workers' Compensation / Unemployment Compensation / Federal Black Lung
P. O. Box 3389 • Charleston, WV 25333 • 304.346-0486

July 26, 1985



Mrs. Mary Martha Merritt, Commissioner
Workers' Compensation Fund
P. O. Box 3151
Charleston, West Virginia 25332

Dear Mrs. Merritt:

RE: Coal-Workers' Pneumoconiosis
Fund Regulations

This letter is in response to the emergency rules issued on June 24, 1985 relative to the administration of the Coal-Workers' Pneumoconiosis Fund. Following are some suggestions and comments we wish to make relative to the regulations:

1. Section 2.1C(4) - We believe a "certified" financial statement should not be required, as some applicants may not have "certified" financial statements. Additionally, the expense of securing such statements should be considered. We suggest deleting the word "certified" from this section.

2. Section 2.1C(7) - This section authorizes the Fund to audit and inspect, at the expense of the operator, records of the operator. If the intent of this section is to cover expenses if the Fund has to hire an outside auditor with additional expertise, then this may be proper. However, if the employer must bear the expense of every audit by the Fund, then we disagree with this procedure. This section could be clarified with the following language:

   > "If applicant cannot be approved without involvement of an outside auditor or the retention of other independent experts, applicant will be so advised and if applicant continues to desire coverage, the Fund shall arrange for such services. In this event, the applicant shall bear the cost of such services."

3. Section 2.4A - Indicates an application for coverage may be denied. Our concern is if an employer is not approved for self-insurance by the Department of Labor, then the only remaining option is to obtain coverage from the Coal-Workers' Pneumoconiosis Fund. As a result, we feel coverage should be granted.

Employers Service Corporation
Workers' Compensation / Unemployment Compensation / Federal Black Lung
P. O. Box 3389 • Charleston, WV 25333 • 304/346-0486

4. Section 2.5 - Permits the Fund to "require such additional deposit as deemed appropriate", and the subscriber is required to submit payment for such additional deposit within 10 working days. We ask that consideration be given to placing a "cap" on the additional deposit, and question whether 10 working days provides an employer enough time to respond to the request for additional monies.

5. Section 3.2 - The potential for retroactive liability in the event of Federal Act or regulation amendments has been addressed by this section. It may be appropriate to include a statement regarding return of premium in the event liability is substantially reduced through legislation also.

6. Section 4 - No longer provides for a retrospective merit rating. We believe this is the most significant change in the new regulations, and we strongly disagree with omitting a merit rating system. We believe good experience should be rewarded. By deleting this section, there is no incentive for an employer to defend claims assigned to the Fund. The result will be that the Fund will be forced to assume responsibility for liabilities that would otherwise be improper, thus ultimately forcing increases in premium rates. The result of this approach will be to cause coal, produced by Coal-Workers' Pneumoconiosis Fund subscribers, to be non-competitive in the market place with all the implications of loss of jobs, smaller tax base and general economic decline.

7. Section 6.1 - Indicates the quarterly payroll and premium report must be received by the Fund on or before the last day of the month following the end of each quarter of the subscription year. We believe this is inappropriate, and suggest the "postmark" be used in determing whether the information has been timely filed. The "postmark" is universally accepted in determining timeliness in filing reports.

8. Section 9.1 - Allows the Fund to deny an operator's withdrawal from the Fund prior to the expiration of a subscription year. We feel an operator should be allowed to withdraw from the Fund as soon as possible, and hope this section will be invoked with discretion.

The rules contain provisions for "New Subscribers" and sales, leases or transfers that are required because of the absence of merit rating. If merit rating is incorporated into the operation of the Fund, these sections should be reviewed accordingly. Merit rating could replace, in part, the need for the prospective adjustment provisions, as well as the approach taken with regard to the sale of business. We understand, and endorse, the need for solvency and protection for the Fund in these circumstances, but feel these ends can be achieved through merit rating without resort to the rather unusual approaches suggested in the absence of such rating.

Employers Service Corporation
Workers' Compensation / Unemployment Compensation / Federal Black Lung
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We trust our suggestions will be of assistance to you. We are prepared to meet should there be questions on our comments. Thank you for considering our thoughts on the proposed rules.

Sincerely,

Paul V. Ayers

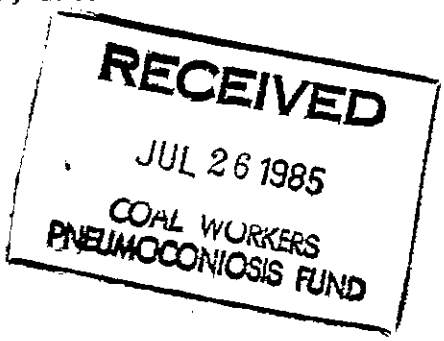
Paul V. Ayers, Director
Workers' Compensation/Federal Black Lung

PVA/LSBBULb1,2&3:lsb

Employers Service Corporation

Workers' Compensation / Unemployment Compensation / Federal Black Lung
P. O. Box 3389 • Charleston, WV 25333 • 304/346-0486

July 26, 1985



Mrs. Mary Martha Merritt, Commissioner
Workers' Compensation Fund
P. O. Box 3151
Charleston, West Virginia 25332

Dear Mrs. Merritt:

RE: Coal-Workers' Pneumoconiosis Fund Regulations

As a follow-up to our recent letter, we have an additional comment to make relative to the emergency rules on the Coal-Workers' Pneumoconiosis Fund. We believe Section 9.3, Refunds, should be amended. Precedent permitted a subscriber to self insure its Federal Black Lung liability, and to receive a refund of previously paid premiums. As the Rules were adopted with no advance notice, the opportunity to self insure, with a full refund of premiums, should be permitted. As an alternative, we suggest consideration be given to granting an extension of time to permit subscribers an opportunity to withdraw from the Fund on a retroactive basis.

Thank you for your consideration on this matter.

Very truly yours,

Paul V. Ayers

Paul V. Ayers, Director
Workers' Compensation/Federal Black Lung

PVA/jm:CR2:gl

JACKSON, KELLY, HOLT & O'FARRELL
(IN KENTUCKY JACKSON, KELLY, WILLIAMS & PALMORE)
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255 ST. ANN STREET
OWENSBORO, KENTUCKY 42301
TELEPHONE 502-926-6030

July 26, 1985

The Honorable Mary Martha Merritt
Workers' Compensation Commissioner
Workeres' Compensation Fund
601 Morris Street
Charleston, West Virginia 25301

Re: Emergency Rules for the
Coal Workers' Pneumoconiosis Fund.

Dear Ms. Merritt:

Enclosed please find Comments to Emergency Rules for the Coal Workers' Pneumoconiosis Fund which we offer on behalf of the West Virginia Coal Association, Perry & Hylton, Inc., and Leckie Smokeless Coal Company.

Sincerely yours,

JOHN L. McCLAUGHERTY

J. RANDOLPH QUERY

JRQ/efb

Encl.

Comments to Proposed Rules and Regulations
for the Coal Workers' Pneumoconiosis Fund.

INTRODUCTION

Emergency Rules [hereinafter the "Rules"] for the administration of the Coal Workers' Pneumoconiosis Fund [hereinafter the "Fund"] were filed by the Workers' Compensation Commissioner [hereinafter the "Commissioner"] on June 24, 1985, and took effect on July 1, 1985. While the Rules do much to simplify the administration of the Fund, they nonetheless create some very special and significant problems.

1. Financial Disclosures. The Rules require that applicants provide a "certified itemized statement" of net assets and liabilities. §2.1C(4). Since the majority of Fund subscribers are small coal operators, it is assumed that certification by an owner or an officer of a corporate applicant, rather than an outside auditor, will be sufficient to satisfy this requirement. This should, however, be clarified.

2. Filing of Reports and Premium Payments. Reports and payments must be received by the Commissioner on the date due. §§2.8, 6.1, 7.1. Cash penalties may be imposed where reports or payments are late. §§6.1C, 7.2. We would recommend that the Rules be amended to focus on the date of mailing, rather than the date of receipt, for purposes of triggering the penalties.

3. The word "prospective" is used throughout the Rules to describe premium adjustments which are clearly "retrospective" in nature. This is misleading and ambiguous.

4. Withdrawal from the Fund. Under the old rules and regulations, a subscriber which wished to self-insure its federal black lung liability was given a refund of all its paid premiums upon receipt of certification from the Department of Labor that the Fund would be relieved of all liabilities. The Fund would not refund income earned on premiums, which was treated as compensation to the Fund for being at risk during the period of membership.

Because the Rules were adopted with almost no advance notice, the opportunity to self-insure, with a full refund of premiums, should be preserved for a reasonable period to permit subscribers which were in the process of preparing self-insurance applications to complete their efforts. We would suggest that the effective date of section 9 therefore be delayed for a period of six months.

5. Transfer of Mining Operations. The Rules will clearly impair the free transfer of mining assets in West Virginia, discouraging the efficient use of resources in the State's most important industry. The Rules should be modified to decrease their impact on legitimate business decisions. It should first be noted that the Rules contemplate adjustments to the basic premium rates in only two instances. A change in the

federal statute or regulations which increases liability will permit an adjustment in rates for past years, and a "new subscriber" may be required to pay an increased premium based on its actual loss experience during its first five years in the Fund. There is no provision for reducing premiums. Designation as a "new subscriber" can therefore have significant financial consequences.

A. Subscriber to Subscriber. Transfers of mining assets involving two subscribers create special problems for both parties. The transferee can be treated as a "new subscriber," which leaves it open to additional premium assessments for the succeeding five years; at the same time, the transferor remains liable for "prospective" rate adjustments for past years of coverage, and the Fund can demand personal guarantees from owners, officers and stockholders to secure this potential liability. The justification for these requirements is not apparent. The position of the Fund has not been materially altered by a transfer from one subscriber to another, and that event should not create new liabilities for either party. To the extent that the Fund has a legitimate concern about a transferee's ability to satisfy potential future obligations attributable to acquired operations, this can and should be addressed through deposit requirements.

B. Non-subscriber to Subscriber. Where a subscriber acquires assets from a non-subscriber, section 10.2 permits

the Commissioner to designate the transferee as a "new subscriber." Designation as a "new subscriber" should be permitted only where the acquired assets are so substantial as to have a material effect on the subscriber's experience.

C. Subscriber to Non-Subscriber. A subscriber which transfers assets to a non-subscriber remains liable for "prospective" premium adjustments and must indemnify the Fund against losses occasioned by the failure of the transferee to meet its future claims obligations. Personal guarantees from owners, officers or shareholders may be required to secure this indemnity. Indemnification should be required only where the transfer is to an uninsured operator. If the transferee has been approved as a self-insurer by the Department of Labor, or is privately insured, indemnification would be duplicative and unnecessary.

6. The Need for Premium Incentives for Low Loss Subscribers. Under the former rules and regulations for the Fund, a subscriber was given a strong incentive to protect its account by defending claims which had questionable merit. Most notably, a merit rating system, based upon the subscriber's actual experience, was required by the regulations. Although frequent changes in the federal statute operated to preclude any meaningful merit rating system during the early years of the program, the promise of retrospective adjustments in premiums remained in place. Additionally, subscribers with

good experience have been allowed to withdraw from the Fund with a reimbursement of net premiums paid to date, and the regulations further provided that the assets of the Fund would be distributed to subscribers in the event that private liability under the federal black lung program was terminated.

None of these features is present in the Rules, although experience rating is contemplated in some very limited circumstances. Most subscribers to the Fund will therefore have no incentive to continue to investigate or defend claims presented by the Department of Labor. Unless the Fund is prepared to undertake its own investigation and defense of presented claims, the Rules will surely result in increased liability for non-meritorious claims and claims which should properly be the responsibility of an alternative payor.

Just as importantly, many coal mine operators who have been subscribers to the Fund in the past have relied upon the old rules and regulations. Federal black lung claims have been aggressively investigated and defended, at substantial cost to the subscriber. To the extent that these efforts were successful in avoiding liability for the Fund, the Fund realized a significant benefit. Under the old rules and regulations, specific representations were made to subscribers that they would have an opportunity to share in that benefit, through some combination of lower premium rates, refunds, or partial rebates. There is no such provision in the new Rules.

In this regard, the Rules are patently unfair. The new rules and regulations must include some mechanism to fulfill the representations and promises made under the old regulations. To the extent that a subscriber under the old regulations has a substantial surplus in its account for any premium year (or group of premium years), a partial rebate of that surplus should be made.

CONCLUSION

The primary advantage of these Rules is that they are much more direct and understandable than the old rules and regulations, and much simpler to apply to a small operator which neither buys nor sells mining assets at any time during the history of its operations. The primary disadvantage is that the Rules replace a theoretical merit or experience rating system with a partial merit rating system. The proposed system unnecessarily complicates transfers of mining assets and unfairly and permanently shifts costs from high loss subscribers to those which, through responsible mining practices and claims management, have been able to preserve a positive balance in their accounts with the Fund. While we appreciate the problems inherent in any experience rating program, we nonetheless believe that many of the specific concerns outlined above would be resolved if a more comprehensive merit rating system were devised.

We would therefore recommend that actual experience be an element of premium rates for all subscribers. That portion of the premium rate which could be attributed to actual experience (as opposed to shared losses and administrative expenses), should, of course, be a matter in the sound discretion of the Commissioner and subject to periodic revision. Acknowledging past disruptions in experience which resulted from changes in federal law, we would recommend that the Fund look only to premium years beginning after January 1, 1982 (the effective date of the last change to the federal statute) in adjusting future premiums. We would agree that no effort should be made to charge additional premiums to subscribers with bad experiences prior to that date. Subscribers with especially good experiences should, however, be permitted to apply for partial rebates of excess premiums for prior years to reimburse those subscribers for expenditures related to decreasing dust hazards at their mines and legal expenses for the defense of claims.

Since the Rules anticipate experience ratings for all "new subscribers," such a system is certainly possible. It would have the additional benefit of discouraging future withdrawals from the Fund; encouraging responsible behavior by subscribers, which would tend to protect Fund assets; permitting simplified transfer rules; and enhancing the fairness of the Fund's operations.

Presented by:

West Virginia Coal Association

Perry & Hylton, Inc.

Leckie Smokeless Coal Company

7/26/85

WV WORKERS' COMPENSATION FUND
Charleston, West Virginia

Transcript of public comment received upon Proposed Legislative Rules regarding standards for medical examination in occupational pneumoconiosis claims, consisting of oral comment offered at Public Hearings held on May 31, 1985 at the National Mine Health & Safety Academy, Beckley, Raleigh County, WV; June 14, 1985 at the Cultural Center, Charleston, Kanawha County, WV; and June 21, 1985 in the City Council Chambers, Morgantown, Monongalia County, WV and written comment received in the Office of the Workers' Compensation Commissioner.

I N D E X

ORAL COMMENT:

INDEX (Continued)

WRITTEN COMMENT

INDEX (Continued)

THIS TRANSCRIPT AMENDED BY ADDING EXHIBIT NO. 24 AFTER BINDING.

Grace Day

Grace Day, Reporter - July 24, 1985

May 31, 1985
1:30 p.m.
BECKLEY, WEST VIRGINIA

MR. MITCHELL: Good afternoon, Ladies and Gentlemen. Thank you for coming.

The purpose of this proceeding is to provide an opportunity for any members of the public to offer public comment upon proposed Rules of the Workers' Compensation Commissioner, who is Mary Martha Merritt. Commissioner Merritt would like to have been here with you today, but her schedule is so busy that she wasn't able to, and she has asked that we appear in her behalf.

My name is William Mitchell; I am employed by the Commissioner. The gentleman in the dark coat, on my right, is Dr. James Walker, who is the Chairman of the Occupational Pneumoconiosis Board.

I assume that most of you folks already have copies of the Rules, and that's probably why you are here. If you don't have and you would like to have copies of the Rules, we have some here, and we can pass them out, if you like.

The way we want to proceed is that I want to make just a few brief remarks about what the Rules constitute and about the rule-making process that we are just now embarking upon. This process will take approximately a year.

These Rules, you may notice, begin at Section 20.8 and you may wonder why it would start at such a number. The reason for that is that these Rules are in the form of an amendment to this package (indicating Rules And Regulations, West Virginia Workmen's Compensation Fund - Filed in the State Register 12-27-82). These Rules and Regulations are the major series of Rules governing the operation of the Workers' Compensation Fund. Actually, these Rules go through Section 20.7, and this will then be an additional Section of these Rules when they are finalized and the whole format is put together.

These Rules have been promulgated as EMERGENCY Rules. That is done because it's a requirement of the Administrative Procedures Act. The Act requires that certain rules, when promulgated by an administrative official, be in the form of Legislative Rules over which the Legislature has final authority. Now, these Rules qualify as that type of Rule, the reason being that they have a direct effect upon the rights and interests of citizens of the State of West Virginia. An administrative official cannot independently promulgate Legislative Rules, but only Proposed Legislative Rules. But, in the interim period, when a need exists, the Administrator can promulgate EMERGENCY Rules that will be in effect for a certain time - until the Proposed Rules can be proposed to the Legislature and acted upon by the Legislature. So when I say we are into a one-year

process, that is what we are doing now. These Rules were filed on May 3, 1985, to be effective for a period of one hundred and eighty (180) days, subject to an extension of another one hundred and eighty (180) days, which, as you can see, will give us just short of one year during which we could operate under these Rules in the EMERGENCY form.

The next step is to conduct this Public Hearing and to receive from you, and from anybody else in the State, any public comment that you care to make to be considered by the Commissioner, who will, after considering all the comment offered, revise this format of the Rules into what will be termed 'Proposed Legislative Rules.' That will happen, I would say, between now and Labor Day. Those Rules will be filed with the Secretary of State in the State Register, and they will be filed at the same time with the Legislative Rule-Making Review Committee, which will consider the Rules between the time they are filed and the next succeeding Legislative Session, which, obviously, will be the 1986 Session. After having performed its deliberations and made its decision of what to do about the Rules, they will make a written recommendation to the full Legislature. If they recommend enactment of the Rules as Legislative Rules, then they introduce a bill, or they promote the introduction of a bill in the Legislature (as a matter of fact, they are introduced in both Houses of the Legislature), and if the Legislature

agrees, then they enact a bill which authorizes the filing of the Rules by the administrative official. The administrator has sixty (60) days from the effective date of the bill of authorization in which to file the Rules, and they, at that time, become final Legislative Rules. That's what will transpire in this process.

I've talked long enough. Our reason for being here is to provide to you folks an opportunity to say whatever you have to say, offer whatever comment, whatever suggestion or recommendation that you care to offer that could be considered by the Commissioner, and she will consider all of that jointly, in connection with the Rules and experience that has been had with the Rules and the whole process. She will decide the final format of the Proposed Rules.

We have a single microphone here, and everybody is seated facing the same way. What I would like to suggest is that whoever desires to speak, please come up here and, first, identify yourself with your full name and the identification of whatever firm or organization or establishment you might be connected with, or if you are not associated with any such firm or organization, if you would just make a brief statement explaining the nature of your interest in the Rules and then offer whatever comment you care to.

MR. SAUNDERS: I'd like to ask a question. Is that permissible?

MR. MITCHELL: Well, sure, but primarily it is to allow you the opportunity to offer comment - but for clarification, certainly.

MR. SAUNDERS: My name is Dennis Saunders. I just wanted a clarification. You made the statement that if the Legislature accepted these proposals what would be the outcome. I don't think you clarified what would happen if these proposals were rejected by the Legislature. Would you clarify that for me, please, sir?

MR. MITCHELL: Yes, sir. The Administrative Procedures Act provides that the Legislative Rule-Making Review Committee, which is a committee of Legislators (it's a joint Committee, including members of both Houses of the Legislature) are given, by the Act, three alternatives: they can recommend rejection of the Rules; they can recommend enactment of the Rules, as written; or they can recommend enactment of the Rules, as modified according to their decisions.

Who would like to offer comment on the Rules?

DR. DANIEL: My name is John Daniel. I am a physician in the practice of medicine in Beckley. I would like to make an objection to (II) on Page 7, which says...to determine what is known as a perfect percentage impairment. This pertains to altitude changes in our State, and, really, that's fine up to four thousand (4000) feet - and I don't think there are many areas in WV that go above four thousand (4000) feet - but you are pertaining to patients who are healthy. I would like to quote the National Conference On Oxygen Therapy, which was published in Respiratory Care, September 1984, Volume 29, No. 9. It says: "The effects of altitude on atmosphere, alveolar and arterial

oxygen pressure in healthy young men." The patients we are testing are not healthy; they are not young. And all of them are men, at this point, for the most part - I have tested one female. I think that that particular paragraph should be deleted. I don't think it pertains to patients with pulmonary dysfunction. I think it has only to do with healthy young males. That's where the research has been done.

MR. MITCHELL: Thank you, Dr. Daniel. Dr. Walker, do you want to offer something?

DR. WALKER: Ask him if he has any other suggestions.

MR. MITCHELL: Have you any other suggestions regarding that particular provision of the Rules, Dr. Daniel?

DR. DANIEL: Patients that are tested in Beckley, WV, or in Fayette County or Kanawha County, breathe the atmospheric pressure that they live in. If their pAO2's are 50 in Beckley, they are disabled. They have a pulmonary dysfuction which is considered significant. If you move those patients to Charleston and move their torr level, their pAO2 levels up to 60, you are going to drop them from a permanent total disability of 100% to a 30% disability. A lot of this research was done by Thomas Petty at the University of Colorado when he took patients from the VA Hospital there, which has an altitude of 5000 feet, and moved them to Brownsville, Texas to the VA Hospital, and those patients that had significant advanced pulmonary disease did

not significantly increase their partial pressure of oxygen. It increased slightly, but it sure wasn't five torr per thousand feet. If it had been, patients with a pAO2 of 50 at Denver would have had a normal pAO2 at Brownsville; therefore, I think you have to test patients where they live. If they live in Beckley, you have to evaluate them in Beckley. If they live in Charleston, you evaluate them in Charleston. I think that partial pressure of oxygen pertains to their own environment. You can't change the levels to satisfy interpretations at different altitudes.

MR. MITCHELL: Thanks again, Dr. Daniel. Who else would like to offer comment?

DR. RASMUSSEN: I am Donald L. Rasmussen. I am the Medical Director of the Appalachian Pulmonary Laboratory in Beckley, WV. I am going to echo some of the things that Dr. Daniel just said. There are a couple, perhaps, lesser things that I will talk about first, though.

First of all, I think it's a good idea to go ahead and establish the standards, and I think some of these will be very progressive moves in terms of the Occupational Pneumoconiosis Board. There were some little questions that I had. First of all, the only question I had about the ventilatory function studies were, while most everything was identical to the Department of Labor standards under 718.103, there was one minor deviation in that the requirement for the MVV had the individual...said the individual 'must be seated'

for performing the MVV manuever; whereas, in the Department of Labor Regulations, this is stated as being 'standing.' I have a little difficulty understanding why it may be optional to have the patient either sitting or standing for the forced vital capacity but required to sit for the MVV. Perhaps that's not a terribly important thing.

Now, there were a couple of questions regarding some of the details for the blood gas studies themselves. For example, Paragraph (E) on Page 6, it says: "...a resting sample of arterial blood must be drawn by direct puncture with a 22-gauge needle and a heparinized syringe." The implication here is that if you were not going to do exercise, then you must use a syringe rather than a catheter. I don't think there is any valid medical reason that a sample of blood drawn through a cannula or a catheter would be any different than one drawn through direct puncture, and I presume that perhaps that should be either option, so long as the patient has been seated for a fifteen (15) minute period.

On Paragraph (G), Page 6 - I think this is a typographical error. It says: "All blood samples must be iced and analyzed immediately..." It probably should mean "...must be iced or analyzed immediately..." I don't think there is any particular reason to ice it if you analyze it immediately.

Paragraph (I), Page 6 states that: "Exercise must be accomplished by having the subject pedal the bicycle ergometer... If

the subject is unable for some physical reason to ride the bicycle, then a treadmill may be used..." I don't think there is any valid medical reason that a bicycle ergometer is superior to a treadmill. I can see some advantages in everybody using the ergometer, if all the ergometers were calibrated properly, and, personally, I have no objection to a bicycle ergometer (I think it is a very good instrument) but I just wondered if that was meant to be a mandatory requirement. That was a question that I had. I would just say that I don't see any valid reason that it should be.

The other problem I had was that there was, I think, probably some slight differences between the 120 Watt...first of all, between the treadmill settings of 2-mph at 10% grade, I would feel would be a somewhat lower energy requirement for a 70 kilogram man than 75 Watts on the bicycle, and at 2.5-mph at a 12% grade, I think would be significantly lower in energy requirement than 120 Watts on the bicycle. The latter would be closer to 2.5-mph at a 15% grade. But, again, this gets into the problem of the fact that there is considerably more variation in oxygen consumption with treadmill exercise than there is with bicycle ergometer exercise. That's why it would be nice, actually, to see oxygen uptakes required, and go on that basis, rather than strictly on the question of the work recorded

on either the ergometer or the treadmill.

The other problem I had was with the level of exercise. I think it is an excellent thing to increase the exercise above the 75 Watt level. As I read this, I got the implication that the exercise should be at 75 Watts or its equivalent at treadmill, or it must be 120 Watts, or its equivalent on the treadmill. And I would only have to say that a good many of the subjects that we see would be really unable to exercise at 120 Watts, and I would presume that perhaps an exercise...that that might be considered the upper limit of exercise, rather than the mandatory exercise period itself.

Now, some people would feel that five (5) minute exercise is not quite sufficient. Most people use at least six (6) minutes. That's a minor point that I wouldn't worry particularly about. I presume, also, that if a patient didn't have a claim number, you wouldn't reject his study that we performed a year or so before.

Now, the main things that I have problems with are the same things that Dr. Daniel talked about. First of all, he mentioned that the standards that are established under your TABLE FOR IMPAIRMENT are really more stringent, more severe, than those used by the Social Security Administration. Now, insofar as the altitude is concerned, when you look at most schemes for impairment, the altitude change is much less than 5 mm per thousand feet; in fact, if you look

at schemes that - for example, one published by Miller and Paez in The Practice of Medicine, Volume 2, 1979, it notes that with increasing elevation the degree of impairment that's considered severe would be...let's say, a p02 of 55 mm at sea level, but at 3000 feet and over, between 3000 and 6000 feet, it would be 50, and, 6000 feet and above it would be 45 mm of mercury...considerably lesser slope than you'd have with your proposed correction for 5 mm per 1000 feet. As a matter of fact, the Social Security Disability Proposed Rules would use the values of...0 to 3000 feet would be 55 mm, 3000 to 6000 would be 50, and 6000 and above would 45 mm, so that you are dealing here again with a fairly rigid, fairly stringent disability requirement, so that that would be...I think the correction there would be excessive, to be perfectly frank with you. And the Department of Labor, in their permanent standards, use values that are 5 mm mercury higher than the Department of Labor so that the values would be 60, 55 and 50 for the 0-3000, 3000-6000 and above 6000 feet, so that, again, I would echo what Dr. Daniel says, that the...for example, the degree of impairment of a man who is considered totally disabled under Social Security Guidelines would be considered only 40% impaired under the Proposed Rules and...actually, 40% impairment would require a p02 of 45 mm in Beckley and that would be the same as for total disability at an elevation of 6000 feet under the Social Security Guidelines, so that I would think that that would be, again, an excessive value.

I think the other difficulty that I have is that there is no...no one has paid any attention, or at least there is no indication that the arterial pCO2 will be looked at or considered in this. And when you look at only the pO2 value, you are looking at something like looking at a fraction, or only looking at the numerator or the denominator, but not both, so that you really need to have a consideration put in there for level of pCO2. For example, there is a reciprocal relationship between pO2 and pCO2, and basically, for every mm drop in pCO2, there'll be a corresponding rise in pO2 of 1 mm of mercury, so that under the Social Security Guidelines, for example, at a pCO2 of 40, pO2 for a total disability at 0-3000 is 55 mm, 3000-6000 is 50, and above 6000 is 45, but with a pCO2 of 30, those pO2 values are 65, 60 and 55, as well. Below there, if you got down to, say, 25 mm of mercury pCO2, it would be 70, 65 and 60, respectively. So I think that should be taken into consideration.

I've also prepared a...what I would suggest as a perhaps more equitable TABLE FOR IMPAIRMENT. Not only do I feel that it's about a 5 mm mercury rise basically from the pO2's suggested in the report, I also felt that it distributed a little more equally, so that you have an even mm mercury change per percentage, which is not the case in the TABLE that I see here. And beginning with, let's say, the level of the pCO2 of 40, a pO2 of 80 would be considered 0;

pO2 of 75 would be 10; pO2 of 70 - 15; pO2 of 71 - 20; 25% would be 69; 30 - 67; 40 - 63; 50 - 69; 60 and total - 55. I have written those out in terms of pCO2's from 25 to 45, and I will give a copy of this to the Commission. There is another way of doing this in that you can simply add the value of the pO2 and the pCO2 in mm of mercury, in which case you would come out with a value for 0% at 120, etc. down the line to 60, or, total would be 95. If you felt that a correction for altitude was necessary, then you could basically subtract 1 mm mercury per 600 ft. and that would give you a precise type of correction corresponding to most of the schemes for impairment. It's a little difficult to be that precise in blood gas measurements, as everybody knows, but that would be my suggestion.

So those are my comments about the proposals. As I say, I'll be glad to leave a copy of my proposals here.

MR. MITCHELL: Thank you, Doctor. This writing that you have offered will be included in the transcript as an exhibit. And, also, I didn't mention earlier, but anyone in the State can offer written comment, as well as personal appearances, at these hearings. That will be received until June 21, 1985, and anything that is received in writing as a comment upon these Rules will be included as exhibits in the transcript.

Who else would like to speak today?

MR. LESTER: I am Perry Lester. Ladies and Gentlemens, I am not very well-educated, and I don't understand all this doctor's literature

and writin's and figures on this Black Lung in no terms of speakin' about it, but I do want to speak in behalf of all...I'm a retired coal miner from Eastern, Boone County, No. 1 Harris Mine. I'm speakin' in behalf of all that is drawin' it. I don't see very many interested in it though. If they would, this place would have been full. But I'm speakin' in behalf of 'em anyhow, in consideration of my case.

I have been turned down for it, protested last May...the 8th day of this month, a year ago, I passed out takin' the breathin' test. I come so nigh goin' out that they rushed me into the emergency room at the St. Luke's Hospital, and they hooked up everything that they had to me to keep me survive, accordin' to the nurse's statement. They kept me in there until about 2 o'clock in the evening from a little after 11 o'clock in the mornin'. They took me to the intensive care room. They kept me in the intensive care room 'til the next day evening. And the nurse come to me the next mornin', the first mornin' I was in intensive care room, and she said, "Well..." said, "Mr. Lester, I'm certainly glad to see you lookin' so good." I said, "Why? I didn't look bad yesterday, did I?" I didn't realize I was that nigh gone. I was numb, but I didn't realize it. Settin' there takin' this breathin' test, I didn't realize I was that near gone, 'til she stopped me and rushed me to the emergency room. Three doctors and three nurses was takin' care

of me. Well, as I was sayin', the next mornin' the nurse come to me and she made the remark that I was lookin' so good, and I said, "Well, I didn't look bad yesterday evenin', did I?" She come over, took a'hold of my hand. She belongs to the Methodist Church in Bluefield. She said, "Brother Lester..." She said, "I prayed for you all yesterday evenin'." I said, "Thanks for that." She said, "If you would have went out..." (she didn't say 'die,' she said, "went out yesterday evenin") said, "I would have felt accused of your death." I said, "Well, thank the Lord." I said, "Your prayers," I said, "was answered." I do. I stayed in intensive care room until late that evenin'. They moved me out into my regular room, and they kept a'watch on me for two days and nights before they discharged me. Then come back, and when it come back, protested. I don't know what it's goin' to take for a coal miner to get his rights. I guess he's goin' to have to die, and if he don't die in the right manner, I pity him. But I thank God I've made that decision. I thank God today, I'm a Christian. I hate to have to stand up and argue for what I've worked and slaved for through the World War II. As many hours as I've put in tryin' to save this country from the communistic power that was a'fightin' against it, I'm sick to know today that I have to stand up and argue for a little pitiful sum of my rights. I'm ashamed of the American people that sees these coal miners that has spent these many long, dreadful, dusty, lurkish dyin' hours a

'savin' this country from communistic power, from slavery, now have to stand up here and argue to get a little bit of rights. I'm sick to know that our country has come to the extents to disobey God, to the levels of our men that have give their all and all for it - a God-given country as we've had, to know that we have to stand up and argue. Now, as far as Dr. Rasmussen's examinations and Dr. Floresco's and Dr. Cardona's at Bluefield, I can't say about what they know about a man, but I don't believe they would give a unjust readance and examination. I have confidence in these doctors, and the way it's a'bein' laid down, it looks to me like there's somebody tryin' to root 'em out. But I'll say, I don't care if it's the Legislature of our country or wherever, that if there's anybody that doubts this, let them go in the place and do what the doctors has got to do to prove it. I can't say but one thing that's a'causin' this and I'd like to read...I'd like to read a scripture. I don't know how many of you is Christians, and that don't bear on my mind, but I've got to stand up for what Jesus Christ has put before me to do. And I want to warn all that's a'fightin' against the laborin' man today that has labored and toiled to save this country from its drastic powers of communism that would have taken over at the time of World War II if it hadn't a been for us a'workin' like we did to furnish the men over there that was a'dyin' on the battlefront for the sake of this country. They was blood shed right here on our

home front a'tryin' to put out the coal, produce the coal and the means of fightin' this War, as well as them men was doin' all they could do over there. And the scriptures is found in James, the 5th Chapter, reading down to about the 5th verse, says:

> 1 Go to now, ye rich men, weep and howl for your miseries that shall come upon you.
>
> 2 Your riches are corrupted, and your garments are motheaten.
>
> 3 Your gold and silver is cankered; and the rust of them shall be a witness against you, and shall eat your flesh as it were fire. Ye have heaped treasure together for the last days.
>
> 4 Behold, the hire of the laborers who have reaped down your fields, which is of you kept back by fraud, crieth; and the cries of them which have reaped are entered into the ears of the Lord of Sabaoth.
>
> 5 Ye have lived in pleasure on the earth, and been wanton; ye have nourished your hearts, as in a day of slaughter.

That's readin' down to the 5th verse. So, friends, I just want to ask you this. I'm not beggin' for my black lung. I'm only askin' in my rights and the fairness of what the law was, and what the law said when a man was made disabled on account of this pneumoconiosis

disease that he was automatically eligible for his compensation. Well, now, I've been down over a year, fully disabled, accordin' to the doctor's statement, and they've turned me down all of this time. The 13th day of March, I had a hearin'. I've never heard a word from it yet. I've never heard nuthin' from my hearin'. The 13th day of this month will be 90 days, and I think that a man ought to hear something within 90 days, or he ought to be seein' somebody else about it. That's my determination. As long as I've got a breath and God spares me a foot to stand on, I'm goin' to stand up and fight for my rights. I don't believe God wants us to hump up, sit down, rear back and let the devil come in and take everything that we've got away from us. I believe God wants us to stand up for our rights and our freedom. And if we don't, we don't deserve it. That's all I've got to say.

MR. MITCHELL: Thank you, Mr. Lester, for your comments, and especially for sharing that scripture with us. I'm sure it will benefit us all.

Who else would like to speak?

If no one else has any comment to offer, then, as I said, if anyone has any afterthoughts, please feel free to send any written comment to the Commissioner's office, and it will be included and considered.

I want to thank all of you folks for demonstrating your interest and especially Dr. Daniel and Dr. Rasmussen for giving us

the benefit of your experience and your expertise.

Thank you, Ladies and Gentlemen.

(THIS HEARING IS CONTINUED TO THE CHARLESTON, JUNE 14, 1985 PUBLIC HEARING.)

June 14, 1985
1:30 p.m.
CHARLESTON, WEST VIRGINIA

MR. MITCHELL: Good afternoon, Ladies and Gentlemen. Thank you for coming.

The purpose of this proceeding is to provide an opportunity to the public to offer comment upon Proposed Rules of the Workers' Compensation Commissioner, who is Mary Martha Merritt. Commissioner Merritt would like to have been here to meet with you today, but her schedule is so busy that she wasn't able to, and she has asked us to appear in her behalf.

My name is William Mitchell; I am employed by the Commissioner.

If anyone has not already received a copy of the Rules, we have copies here, and if you could just hold up your hand if you want a copy, the Court Reporter will bring it to you.

The way that we will proceed today is that we will first make a few brief remarks about the Rules and about the proposed rule-making process that we are involved in. Then, the remainder of the time will be allotted to you so that you can offer comment.

These Rules, you may notice, begin at Section 20.8 and you may wonder why they would start at such a number. The reason is that they are in the form of an amendment to this Series of Rules

(indicating Rules and Regulations, West Virginia Workmen's Compensation Fund - Filed in the State Register 12-27-82), which is Series One of the Rules governing the operation of the Workers' Compensation Fund. And after the Rules become final, they will be incorporated into this series of Rules as Section 20.8.

These Rules have been promulgated as EMERGENCY Rules, and that has been done in accordance with the provisions of the Administrative Procedures Act. The Act requires that certain Rules, when promulgated by an administrative official, must be in the form of Legislative Rules over which the Legislature has final authority. These Rules that we are dealing with today do qualify as Legislative Rules, the reason being that they have a direct effect upon the rights and interests of citizens. As you know, they will affect the amount of benefits to which claimants are entitled and they affect the charges and costs incurred by employers; therefore, these must be Legislative Rules. Now, then, an administrative official cannot independently promulgate Legislative Rules, and may only promulgate Proposed Legislative Rules; however, in the interim period, when the Proposed Rules are being considered, the Administrator can promulgate EMERGENCY Rules which will be in effect until such time as the Legislature acts upon the Proposed Legislative Rules. These EMERGENCY Rules were filed on May 3, 1985 and will be in effect until after the 1986 Legislative Session. The Rules were also filed, as required,

with the Legislature. At about the same time that the EMERGENCY Rules were filed, we instituted the Proposed Rule-Making process, which will go on now for approximately one year. The notice of a public hearing, which is the first requirement of the Administrative Procedures Act, was filed in the State Register and also with the Legislature. We also advertised in 35 or 40 newspapers throughout the State. We sent approximately 400 copies of the Rules to physicians, attorneys, unions, employer service companies and the West Virginia Medical Association. As you know, the notice provided that there would be three (3) hearings, the first of which was held on May 31, 1985 in Beckley, WV. This is the second, and the third will be held on June 21, 1985. A single transcript will be prepared of all of the hearings and all of the written comment that is received. That will be available, of course. It will be filed in the State Register and with the Legislature, and will be available to interested citizens.

Another development is that, last Sunday, the Legislative Rule-Making Review Committee had a committee hearing at which they took up these EMERGENCY Rules. They were interested to know what the Rules dealt with, why they were promulgated, why they were promulgated as EMERGENCY Rules, etc.

As I say, the last of the three hearings will be held on next Friday. In addition, written comment may be submitted by any-

one, by mail, at any time on or before June 21, 1985. After all the oral and written comment has been received, it will be incorporated in a transcript and will be considered by the Commissioner, who will then amend these Rules, these EMERGENCY Rules, to create the Proposed Legislative Rules, which will then be filed in the State Register and with the Legislature. The Legislature will then consider the Rules and act upon them during the 1986 Session. Thereafter, finally, we'll have a final filing of the Rules, and at that time, they will become effective as Legislative Rules and they will supplant these EMERGENCY Rules.

Now, then, let's move on to our purpose for being here, which is your comment. First, let's do a little survey to figure out our timing. How many people want to offer comment today - would you please just raise your hands. (Six)

I assume that some of you folks may need to travel, or for other reasons you may prefer to speak and get away as soon as possible. Would anyone that prefers that please raise their hand. (None) Now, we will have just a couple of ground rules. We welcome any relevant comment that you care to make - any analysis, any criticism of the content or the effect of the Rules, and, particularly, any suggestion or recommendation that you care to make that you have reason to believe would improve the Rules, their content, or their effect.

There will be no specific time limit upon individual comments; however, the comment that you offer must address the content of these Rules. We can't include discussion of other matters in this hearing. When you speak, please come up to this microphone on my right, so that everyone will be able to hear you, and your comments will be properly recorded. I would like to ask that when you do speak, first identify yourself with your full name and the name of any firm or organization you represent, and if you don't represent a firm or organization, please give your address and just a brief statement about the nature of your interest in the Rules. If your comments are in writing, or if you have any written information of any kind in support of your comments that you would like to have considered, please leave them with us and we'll include it in the transcript.

With that, who would like to speak first?

MR. BURDISS: I am Mike Burdiss with the United Mine Workers of America Compact. What I will be doing is reading a letter from the Deputy Director of Occupational Health for the United Mine Workers, who was unable to attend today.

These are comments of the International Union of the United Mine Workers of America on the Proposed Rules concerned with medical standards for occupational pneumoconiosis.

First of all, we suggest some changes in certain terms. The use of FEV should not be equated with FVC. FEV could easily become confused with FEV-1 and, in any case, is not standard medical terminology. Similarly, FEV-1/FVC should be used rather than FEV-1/FEV. And, it is the National Institute for Occupational Safety and Health, not "of."

Second, you do not state in these Rules how the ventilatory function tests are calculated. For example, is the FEV-1 calculated as the average of the best 3 of five technically satisfactory tests or is some other method used. These Rules are also silent about the specific standard formula you propose using for calculating predicted values for ventilatory function.

Third, you exclude from consideration ventilatory function tests that are technically unsatisfactory, a procedure that might result in determination of impairment that is inconsistent with a person's actual health. Recent research (1,2) demonstrates that persons with impaired function perform technically unsatisfactory tests more often than persons with normal function. Therefore, excluding technically unsatisfactory tests may result in denying eligibility for compensation to the very persons who need it. In some fashion, this problem should be incorporated into these Rules.

Finally, the Proposed Rule for adjusting arterial blood gas studies for differences in altitude seems irrational and unfair.

We recognize that one aspect of physiological impairment is measured by the partial pressure of arterial oxygen. This, in turn, is partially dependent on altitude because the partial pressure of atmospheric oxygen decreases with altitude. Other scientific issues concerning this Rule were well covered in the comments of Dr. Donald Rasmussen and we defer to his judgment on this issue.

We wish to discuss, however, the policy implications of this Rule. To transform this natural phenomenon into the Proposed Rules (in the form of standardizing all arterial blood gas test results to the altitude in Charleston) results in arbitrary and ultimately unfair decisions. It could result in a person have one level of impairment (and disability) in Bluefield, for example, and another in Charleston. What is such a person to do, move to Charleston in order to "lead a normal life?"

Assuming that adjusting for altitude is appropriate, a more reasonable case could be made for adjusting to the altitude where the person lives. Presumably, this is where the person would spend most of his time. And it is the quality of the person's life where he lives that is at stake rather than the necessity of including this particular feature of lung physiology into these medical standards. A case could also be made for adjusting for the highest place in the state, in consideration of the inevitable imprecision of measures of physiologic function and giving the benefit of doubt to

the claimant. Any other standard altitude would be arbitrary and would result in decisions made without reference to the real life situation of claimants.

We appreciate the opportunity to comment on these Rules and may make additional comments later. Please contact us if you have any questions about these comments. Sincerely, James L. Weeks, Sc.D., C.I.H., Deputy Director, Occupational Health, United Mine Workers of America.

Thank you, sir.

MR. MITCHELL: Thank you, Mr. Burdiss. Who would like to be the next speaker?

MR. COX: My name is Floyd Cox. I am employed at U.S. Steel Mining Company, No. 50 Mines, Pinnacle. I appreciate the opportunity, Mr. Chairman, to comment.

The United Mine Workers members have fought for years to have the Congress of the United States and the State Legislators to recognize black lung as an occupational disease and to establish a compensation system to take care of this disease.

Now, the coal operators, through the WV Coal Association, is trying to eliminate these benefits which coal miners have received as a fair and just compensation for sacrificing their health over a lifetime in the coal mines.

The new Regulations of the Workers' Compensation are unfair to coal miners because, on Page 7, Paragraph II, for the first time in WV history, the Workers' Compensation Commission is making what is called an 'altitudinal adjustment' in blood gas studies in occupational pneumoconiosis claims.

For each 1000 feet of elevation of the testing location over Charleston, the Workers' Compensation wants to take five points of disability off the test. For example, Beckley is 2000 feet higher than Charleston and all blood gas studies will have ten points taken away from all Beckley tests. Dr. Rasmussen, the true authority on black lung in WV, says there may be an 'altitudinal adjustment,' but he says it should be one point for each 1000 feet of elevation, not five points for each 1000 feet of elevation over Charleston.

These new Regulations will nullify tests done in Beckley and Bluefield, the two real centers of coal miners' black lung testing. The most important thing and the most dangerous is that these Regulations are doing away with the Appalachian Regional Hospital Pulmonary Laboratory in Beckley (Dr. Rasmussen) and its effectiveness. This is a trick, as I see, by the WV Coal Association and its lawyers here in Charleston.

The Federal government does not make an altitudinal adjustment in its black lung program. I thank you.

MR. MITCHELL: Thank you, Mr. Cox.

Next speaker?

MR. BAILEY: My name is Bill Bailey, President of the West Virginia Black Lung Association, also of the local chapter in Beckley, WV.

On May 31, there was a hearing held in Beckley, but due to the, you might say, a slight incommunication, there was very few people that knew about that hearing to be held in Beckley, so we more or less went on speculation, wanting to know what was happening. And when we got there, the gentleman from the Compensation Department enlightened us to what it was all about. Of course, that gave us too little of a time to write our comments or make any comments whatever, except for two various specialists in that field of occupational pneumoconiosis in pulmonary examinations, and that was Dr. Rasmussen and Dr. Daniel, and they were from that area. These people, especially one - Dr. Ramussen is well-known all over this country and in foreign countries, also. In fact, we have people coming out of Canada and from across the waters in England, Great Britain, for the second evaluations because of their parlimentary procedures through their government that they get the second evaluations of the conditions of miners that have contracted this disease. I've made appointments for many of them out of Canada, and some from Great Britain, through the laboratories at Dr. Rasmussen.

But I don't want to be repetitious, but I want you to know that we are here, strongly opposed, after we have learned what

Section 2, on Page 7 has in store for the working miner or for that retired miner that might be still yet...his claim is pending here in WV Compensation Department. We are opposed to that whole section. We want it alleviated, taken out, stricken completely, because on the authority of people like Dr. Donald Rasmussen and Dr. Daniel. And I am sure that there's doctors here that will turn in documents saying the same thing from the State of West Virginia. But as President of the West Virginia Black Lung Association, and as a retiree...and I have gone through these tests in my own time, in 1972. And if they get any stricter than they were then, with a man near dead from this disease...and he only gets a percentage when he comes here. In these Proposed Regulations or Rules, he'll get nothing - which the coal conglomerates want. They want to take it away from him. But in contracting this disease...if you'd only stick your nose inside the mines and see the conditions...not only for the day's wages, but for the condition of his health, that he'll maybe ask that day, or a year or ten years after, you never know. And then they provocate to take what he has due coming to him from contracting the disease, and then give him nothing for that, then I say they are strongly after it again like they were in 1969. Gentlemen, it's been on the books since 1923 to compensate a man for this disease, but it was never brought forward until you had people that were dying of what they called asthma, mine asthma. They said, "Aw, that stuff won't hurt

you. You just eat all of it you want. It might cause a good laxative."

To the Workmen's Compensation Fund, I stated my name, President of the WV Black Lung Association, and I speak for the disabled black lung victims of this State. I cannot speak in the terms as far as medical evaluations, but I know some of them. But as you clearly know, and will receive, if you desire, the statements from Dr. Rasmussen - experts - Dr. Daniel and others, you will find in the medical terms exactly what they are talking about...by the altitudes that they are trying to get in these Proposed Regulations. And I might say here, I don't approve of the way they've gone about even proposing, since May 3rd, of examining people that have had claims in for six-seven years to be examined here by the Occupational Pneumoconiosis Board of the Workmen's Compensation. I don't think they should have that May 3rd there. Wait 'til these things go or pass, or either fail. Then, take a man and examine him. We have rules for examination. Why are they wanting to start it and stop it right on May 3rd through the time limit of this proposals to go through? I don't approve of it.

I can't speak to terms that doctors might do and have done, but when they read of these proposals, and these are experts in their fields, they have objected thoroughly to Paragraph II on Page 7. Whoever started the provocation to make it harder for a man or

woman to get anything from their Workers' Compensation - and Ladies, there's some of them working in the mines, and I know that a lot of you ladies will have more feeling for another lady than you would the menfolk, because they are more muscular and all, or masculine, but nevertheless, these ladies are working there under these same conditions and can contract black lung. The Compensation Board examiners have long been conservative when it came to making an evaluation on black lung victims and now, or I should say, the power pressures or the influence of the coal conglomerates of this State have thought up another scheme by way of proposing Regulations to make it even harder to collect for this permanent injury. You wouldn't be here if you didn't know something about black lung, but you will find that the Federal Government, and the State also, acknowledges that it is a permanent and a progressive disease. It never gets better. You might make it stabilize for a little time limit there, according to the conditions, but you'll never make it better. It is a progressive disease. So think about it when you make your comments and come up here and state that whatever you might do.

If you think the Federal Regulations - I can ask questions too, can't I? Spontaneous response like that? How many has read the Federal Register? (Several hands.) Oh, Oh. I'll tell you what, you ought to get the Federal Register - the rest of you -

and read it. If you think that the Federal Register are stricter, then you had better read these proposals here in comparison to the Federal Register. These people have told you that these Proposed Regulations have been in effect since May 3rd. That means anybody that had a claim in will be not be gauged in the blood gas studies under the old system, but they will be gauged according to these proposals that they are proposing. And read them according to the altitude. Supposing you have a father or brother in Denver, Colo., and you know what they call that city. Supposing he is evaluated out there according to the system that we are proposing here in West Virginia - Mile High - think about it. Two thousand feet is Bluefield. Many working miners go to Bluefield and be examined, but here we are on the elevation of 600 feet in Charleston. Think about it. And the working miners today, I'm sure if they'd had more communication between the Workmen's Compensation Director about these meetings, I think you'd have to move out into a bigger building. But in Beckley, we didn't have enough time to even know you were coming. It just slipped up on us through an attorney that had received a letter and we didn't even know about it til the night before you was going to have your hearing, so I leave with you a copy of this statement. I won't go over the medical parts that Dr. Rasmussen and the rest... the blood gas studies and such...the charts of that sort. Thank you very much.

MR. MITCHELL: Thank you, Mr. Bailey.

Who would like to be the next speaker?

DR. WAGNER: My name is Gregory Wagner. I am a physician, Board-certified in the specialty of internal medicine. I am also Chief of the Division of Occupational and Environmental Health at Marshall University School of Medicine.

I serve as the medical consultant for the Chronic Respiratory Disease Treatment Program at the Cabin Creek Medical Center in Dawes, where we have seen over 1500 coal miners with varying degrees of impairment over the last seven years. From the perspectives of both an academician and a medical practitioner knowledgeable about pulmonary function and health and disease, I'd like to comment on the Proposed Rules of the Workers' Compensation Commissioner concerning medical examinations in Occupational Pneumoconiosis claims.

I'd first like to apologize for not having a completed written statement to turn in to you at this time, but I only recently learned of the Proposed Rules when they were sent to me by an acquaintance. I've got some concern that other people, like me, who've been intimately involved in the care of individuals impaired by pneumoconiosis, who work with the lung disease clinics, have been similarly omitted from the mailing list of people receiving copies of the Proposed Rules and the notices of hearings; that the Commissioner

may have denied herself some opportunity for informed and helpful input into the process of final rule determination.

I was pleased to see that there are standards now published, and recognize the amount of effort that has gone into their production. In particular, I think that the effort to utilize standardized lung function testing is appropriate, and, further, by making explicit the guidelines being utilized for impairment determination, you are permitting a necessary public and scientific scrutiny. There are, however, a number of specific points in the Rules that I would like to comment on, not necessarily in order of their importance. In fact, I have a couple of picky things first.

The majority of the Rules on how to perform the spirometry are along the American Thoracic Society statement on standardization of spirometry, and I would agree with the adoption of this standard from the American Thoracic Society and would like to know the rationale for deviations from it. For example, the Proposed Workers' Compensation Rules require that nose clips be used. The American Thoracic Society recommends, but doesn't require it, and we found, in some individuals, that they test more accurately without the discomfort and annoyance of the nose clip. I would recommend comparison of the Proposed Rules with the ATS standards and to consider acceptance of the ATS standards where the procedures differ.

The second thing I would like to mention is the maximum voluntary ventilation study - the MVV - which most people agree is of limited utility, is uncomfortable to perform and frequently shows considerable variation from test to test, despite valid effort. Individuals with substantial impairment can end up feeling sick for hours after attempting to comply fully with MVV instructions. It's my understanding that the U. S. Department of Labor has made the MVV optional in its impairment determination process, and the failure to perform an MVV to a point of arbitrary multiples of the FEV-1 is often used as an internal measure of effort adequacy, despite the inadequacies of the test; therefore, in the long run, it tends to be used punitively against people with legitimate impairment, rather than to be used, in fact, to ascertain impairment. Further, the test is sufficiently strenuous as to require substantial waiting time between efforts and can be somewhat cumbersome to administer, particularly three times. Therefore, I would recommend explicitly making the MVV optional in the impairment determination process, and, second, permitting the submission of two MVV tracings if they are within 10% of each other, rather than requiring three tracings. Again, this is consistent with the Department of Labor standards.

Moving on to the TABLE FOR IMPAIRMENT OF PULMONARY FUNCTION. I'd say that it appropriately lists test results in terms of percent of predicted values; however, there are a variety of

standards for predicteds that are in use among function testing, and I would recommend that you make explicit the reference standard you propose, so that this, too, can enjoy the value of public discussion. Looking further at the TABLE FOR IMPAIRMENT brings me to a number of my more substantive concerns. The chart appears to be constructed in a manner that fails to recognize the degree of impairment suffered by people with moderate or severe disease and disordered measurable functions. Let me give you some specific examples.

In the Federal system for black lung benefits determination, an individual has a rebuttable presumption of total disability if their forced vital capacity, or FEV-1, are at less, or equal to, or less than 60% of predicted. In the Table which you provide, an individual with this level of abnormality will have the test results used as a "indicator" of a 30% permanent partial disability or impairment. Given the adversarial nature of the Compensation processes, it translates into what might be called a rebuttable presumption of 30% rather than a rebuttable presumption of 100% disability. Second, in the Social Security Disability Determination process, individuals with pneumoconiosis or diffuse lung diseases, who have a resting pO2 of 55, or less, are found to be totally disabled from all gainful employment. Social Security disability standards are usually more stringent than those utilized in Workers'

Compensation proceedings because of different definitions of the meaning of disability or impairment. In this case, however, an individual with a pO2 of 55 would receive, again, "indication" of 40% impairment rather than complete impairment. And instead of looking at these blood gas values as they relate to other disability determination procedures, I think we ought to look at them clinically, also. A resting blood pO2 of 55, or below, is an absolute clinical indication for the administration of supplemental oxygen for up to 24 hours a day. Many people with pO2's between 55 and 60 also require supplemental oxygen for up to 24 hours a day, especially when they exercise. And insurance policies, for example, generally cover this kind of oxygen administration. It's, therefore, difficult to reconcile a pO2 of 60 with an indication of only 30% impairment, or one of 55 with only 40% impairment in the same way that it's difficult to think about somebody with the need to have oxygen delivered into his body working fulltime in the occupation for which he is qualified by experience or training.

While on the subject of blood gas testing, I am confused by the reasoning behind the so-called standardizing of test results from different labs. The method employed differs both from that utilized by the Social Security Disability Determination Section and by the Federal Black Lung Benefits Program. If any adjustment is to be done, my best recollection is that the appropriate factor is about

one (1) millimeter of mercury for every 600 feet of elevation, or five (5) millimeters adjustment for testing over 3000 feet. It is, in fact, difficult to understand why an effort is being made to standardize to the Charleston elevation. Clearly, if there is any adjustment to be made, it should be to the elevation where the claimant lives and works, because that is where the impairment is felt. Also, in arterial blood gas use, it's standard medical procedure to consider both the pCO2 as well as the pAO2 in making the determination as to what the arterial oxygen saturation means, and I see that you have omitted this. I am not, again, sure why.

Going back to the charts and looking once again at the values for ventilatory studies, I am struck by the difficulty that many people have merely walking across a room when their vital capacity or FEV-1 reaches 50% of average for their height and age. At this level of impairment, few, if any, could work satisfactorily, either in the mines or factories where they had exposure to the hazards creating occupational pneumoconiosis. Yet, the chart takes this as an indication of only 50% impairment.

Looking now at the chart indicating lower levels of impairment, I have another concern that requires a somewhat more academic discussion of the nature of testing. The setting of a cut-off point between what's considered no impairment and what is considered some impairment is an arbitrary process. Some people who

have impairment are going to be caught on the no impairment side and some people who have no impairment are going to be caught on the impairment side, no matter where the dividing point is set. The terms we use to discuss this are false/positive to designate people incorrectly labeled as impaired; false/negative to designate people incorrectly labeled as unimpaired; true/positive to designate people who are impaired, who are correctly labeled; and true/negative to refer to people without impairment, who are correctly labeled. No medical tests are perfect and all produce some false/positives and some false/negatives. The measures of how often someone with a condition (in this case, impairment) is correctly labeled as impaired is known as the sensitivity of the test at this cutoff. The measure of how often people without impairment are correctly identified is known as the specificity of the test.

The reason that I have gone into this long explanation is to look at one example from the chart. Looking only at the FEV-1, according to the results of a community survey where no Compensation at all was involved, where over 1800 people were interviewed about breathing problems and then were given lung function tests, the results are that by setting the cutoff at 80%, the test only picks up 20% of people meeting clinical criteria for chronic obstructive pulmonary disease. In other words, 80% of those with disease scored above this 80% level, indicating, in the chart, impairment. Eight in

ten would have been missed. The information from the studies is not completely applicable to the situation under discussion today; however, the fact that the test is so insensitive points out the need for flexibility in the use of any criteria adopted. In particular, I strongly support the Proposed Rule that considers any acceptable value to be used to indicate a degree of impairment. Different conditions caused by dust create different physiologic responses, and by using multiple tests, even if they have low sensitivity, the procedure can be improved if any one abnormal test is given full weight and consideration.

One of the reasons that there is a problem in correctly indentifying people who should be granted a partial disability award is that in the working population as opposed to the general population, from which standards are derived, the average function at the start of employment is generally above the population average. In other words, many young miners and factory workers just entering employment have lung function tests that are at 110, 115, or 120% of predicted. They have to be healthier than the average in order to get physically demanding jobs. This is a well-recognized phenomenon called the 'healthy worker effect' when epidemiologic studies are done. And what this means is that someone can lose a significant amount of lung function in the course of employment because of occupational exposures and still remain within the limits of what is

considered normal in the population. Someone, for example, might drop from 120% to 80% of predicted and, according to the chart, be seen as having no impairment, even though both their efficiency at work and their ability to pursue everyday life with a vigor that was normal for them has been significantly impaired. Similarly, I am concerned that by going at 5 or 10% intervals, it is difficult for an individual to demonstrate progression of problems, even when their health has deteriorated.

There are two other problems I would like to address, both of which are related to the fact that there may be variation from test to test in an individual; what this means; and, therefore, how to consider the information.

Any healthy person can have differences between tests from one day to another, and even from one hour to another, despite full compliance with test instructions. Someone with impaired pulmonary status is more likely to have day to day or week to week variation. In fact, the same dusts that create abnormal chest x-rays also create mucous hypersecretion and airways obstruction. This airways obstruction may vary, especially if the patient is taking medications, depending upon the dose and time, and a variety of other factors. In fact, chronic lung disease is characterized by variations that we call, clinically, exacerbations and remissions. This is part of the everyday life of the impaired individual with

COPD and is part of what is permanent about their condition. It is no more rational to assume that any single best test is the indicator of permanent impairment than it is to assume that the single worst test is the indicator. In other words, it is essential to consider the universality of lung diseases and test results suffered by dust exposed people in making decisions about their permanent impairment.

Finally, the factor of the nature of the testing process itself should be considered in understanding test variation. What is commonplace to medical people in the lung function laboratory can be intimidating to people unfamiliar with the equipment or the procedures. There must be a supportive atmosphere which recognizes the impact of this, as well as understands the fact that an apprehensive, hard-of-hearing, impaired claimant might have some difficulty performing with the consistency that the lung function testing technician might wish. People have to be scheduled at intervals and treated in a manner that is respectful of their individual frailties and that is supportive rather than suspicious.

Thank you very much for your time. I would be happy, if you have any questions, to try and answer them.

MR. MITCHELL: Thank you, Dr. Wagner.

Who would like to be the next speaker?

MR. LEACH: I am Tim Leach and I am a Compensation attorney for UMWA, District 17. I would like to offer a couple comments, and many

of these have already been addressed by the previous speakers.

The area of greatest concern to this claimants' representative is the altitude adjustment made in blood gas studies. The altitude adjustment, as previous speakers have indicated, establishes Charleston as a base 0, even though nearly every other municipality in the State of WV is at a higher altitude than Charleston. Only those few towns down the River - Huntington, maybe Point Pleasant - are at a lower altitude level. No consideration is given as to where the claimant lives and works. The very determinants for total disability determination are the claimant's daily activities in his life and his work place. None of our miners live and work at the St. Francis laboratory.

The next area of concern about this altitude adjustment is that it is so much stricter than the Federal standards. The Federal black lung program does not make an altitude adjustment until there is a difference of 3000 feet. None of our laboratories in this State are at a higher altitude than 3000 feet, so the Federal program considers all testing equally in West Virginia.

Fourth, the altitude adjustment results in lower disability awards in a substantial percentage of the claims. An altitude difference of only 400 feet can result in up to a 5% disability reduction, according to the charts submitted for these considerations. And a 5% disability decrease is equivalent to

$4000. That means that if a test result, under the old standards, which made no adjustment, were considered under the new standards, an altitude adjustment for only that 400 feet could cost the claimant $4000 in black lung benefits. This would be tantamount to the first cutback in black lung benefits in the history of this State's program.

I would conclude that to avoid cutting back in disability awards and to avoid creating a standard even more stringent than the Federal standards, and, in order to comply with the very definitions of total disability, that the altitude adjustment should be dropped altogether, or at least made to conform with the Federal standard, or, perhaps, based upon a mean level for the State or the altitude where the claimant resides and works.

The next area of concern is the disability standard, which previous speakers have also addressed. The purpose of setting forth the standards for various disability awards is an admirable goal. This allows the Commissioner, the OP Board, the appellate bodies and practitioners to be able to evaluate cases and know what type of claim they have and how their evidence stands before going into the hearing process. The ultimate result of this could be fewer protests, less litigation, fewer hearings for the Commissioner to conduct. The standards can also be used for accurately evaluating second injury life awards and other such cases where disability must

be determined without the OP Board's expertise and guidance. The problem with the standards, they appear to be too severe when compared with the, what is generally considered to be severe, Federal program. All of the standards, as we've pointed out before, exceed the standards for total disability under the Federal program. Now, if these disability standards are subject to this amendment process (which I don't believe is clear) then I do not see how this State, which has taken the lead in compensating its citizens, can adopt a standard which is even more severe than the Federal program.

Finally, I have a question about the present applicability of these standards altogether. I think that whatever standards are eventually adopted should not be placed into effect until a time period has passed to allow for substantial and adequate compliance by the various laboratories. As matters now stand, I represent claimants that I have evidence that used to be evidence of disability, but under the temporary EMERGENCY standards, because of altitude adjustments or other reasons, the evidence shows no disability. So, consequently, I am compelled to try to delay the process of those claims until a final decision is made on this Regulation process - which I was dismayed to learn may be over a year from now. If, on the other hand, the Rules and Regulations were suspended altogether, then I assume that my counterparts for employers would also be trying to delay claims, and delay the process

of claims, until they could determine if these new standards are going to go into effect. So it would appear that the standards ought to be made to apply to new claims filed after the standards are in the Regulations instead of being retroactively applicable to claims which are already presently pending before the Commissioner.

Another problem which has already come up in a couple of hearings is the case where a disability award was made upon the old standards and then the employer has filed a protest, and, at the subsequent hearing, the new standards may or may not apply, which cause the award to be reduced just because the rules of the game changed in the middle. So this is a great area of concern also.

Mr. Mitchell, I would propose to submit a written statement in greater detail for the Commissioner's consideration. Thank you, sir.

MR. MITCHELL: Thank you, Mr. Leach.

Yes, sir?

MR. BEESON: My name is Joe Beeson. I am an attorney here in Charleston and I am making these comments, not only on my own behalf, but on behalf of a number of my clients - all coal companies that operate in the State of West Virginia, and, basically, companies of the American Electric Power system.

I will probably be submitting additional comments on behalf of other clients in the hearing in Morgantown next week that

will be in a great deal more detail than these are, but I did want to have the opportunity to make a few comments today in support of the Regulations.

Over the past several years, by judicial action, the nature and degree of medical evidence necessary in order for a claimant to prevail in an occupational pneumoconiosis case has been drastically minimized - I realize this puts me in opposition to most who have spoken before, in that I don't think the Regulations are at all conservative. In this respect, occupational pneumoconiosis cases have seen the same evolution - perhaps revolution is a better word - as Workers' Compensation cases generally. The Liberality Rule, which is used in Workers' Comp, which was never intended by the Legislature to apply to the evidence in Workers' Comp cases, now seems, in many cases, to be utilized as a substitute for evidence with extremely inequitable results.

I have practiced in this area for ten years. While I do not in any way advocate a system which denies benefits to deserving claimants, I believe it is obvious to all but the most myopic that the system has been perverted to permit the payment of benefits in many cases, regardless of the evidence, to persons who are in no way entitled to recover them. This, of course, adds to West Virginia's negative business image and places an unreasonable and unjustifiable burden on the State's employers.

Neither this Commissioner nor her immediate predecessor have been responsible for the development of the problem - and the Commissioner should be commended, I think, for her efforts to develop a set of Regulations which help to provide a uniform procedure for the evaluation of disability due to occupational pneumoconiosis. Although I believe that the weight of medical opinion would support more conservative standards, the Proposed Standards are apparently intended to satisfy the mandate of the Supreme Court of Appeals.

I would note, first, that Dr. Donald Rasmussen, who has been cited here many times today, has filed comments which are generally supportive of the Proposed Rules. The only significant areas of dispute raised by Dr. Rasmussen relate to the use of the pCO2 in the evaluation of impairment in blood gas testing, and the altitude adjustment which has been mentioned and seems to be the main focus of criticism of the testing. I suspect that the comments we offer in Morgantown next week will have more to say about the altitude adjustment. On the point of the altitude adjustment, though, I think it should be noted that even Dr. Rasmussen does not contest the need for an altitude correction. He's testified, in a number of Workers' Compensation cases, that a correction should be made for altitude from locations such as Beckley to Charleston. I was present, I took his testimony, and I know that's the case.

It's not my purpose today to go into minute detail on the various provisions of the Proposed Rules. As I said, we'll probably go into a great more detail at a later date. But I would like to address two of the most, to me, the most significant provisions of the Proposed Rules. The first is the right of the Occupational Pneumoconiosis Board to require additional pulmonary function testing where valid submitted test results appear to differ; and the second is the Proposed Standards for exercise blood gas testing.

I might...although this isn't in my written comment, I might just note, in passing, that there has been a great deal of criticism today of the chart and standards developed by the Workers' Compensation Fund. I would simply note that, based on my experience in this field, that the results being utilized in that chart are not significantly different from the results that have been utilized for years in evaluating pneumoconiosis, without any great objection from anyone.

It's a generally accepted medical fact that occupational pneumoconiosis is an irreversible disease process. This means that impairment due to occupational pneumoconiosis will not improve. Accordingly, pulmonary physicians virtually unanimously agree that where valid tests are performed in reasonable proximity to each other, the test showing the least impairment is the test indicative

of impairment due to pneumoconiosis. Dr. Rasmussen has so testified. Nevertheless, the Supreme Court of Appeals has decreed that, medical fact notwithstanding, utilization of the best test results where results conflict is unacceptable. In effect, the Court has mandated that the members of the Occupational Pneumoconiosis Board abandon their medical judgment in favor of an artificial standard imposed by the Liberality Rule.

The Proposed Rule would permit the Occupational Pneumoconiosis Board to obtain an additional test where valid, contemporary test results differ. I don't see how anybody can object to this. Although it's more liberal than perhaps good medical judgment would require, this Rule would avoid the wholly improper alternative of utilizing the test result showing greater impairment to the exclusion of the result showing lesser impairment. Presumably, the additional test will confirm the validity of one or the other of the prior tests. I note that Dr. Rasmussen did not take issue with any of that in his comments. It seems to me to be completely fair to both claimants and employers and not objectionable in any way.

When this approach is coupled with the standards relating to how testing must be performed (I've heard one or two criticisms about some of the methods by which testing should be performed, and I'm not qualified to express an opinion on that), what

I would call the technical rules for testing - when that's coupled with the approach of permitting the additional tests, the probability of the OP Board reaching a medically defensible result is greatly enhanced. The technical rules further help to ensure that testing will be performed only in well-equipped laboratories, staffed with competent technicians capable of producing valid reproducible results.

I would suggest only that the right of the Occupational Pneumoconiosis Board to obtain additional testing be extended to include additional blood gas testing as well as additional pulmonary function testing. There seems, to me, to be no good reason to limit the Board's authority to obtain additional tests.

Secondly, the Proposed Rules for exercise blood gas testing which relate to the degree of exercise to be utilized strike a happy medium between those who criticize present Occupational Pneumoconiosis Board exercise testing as insufficient and those who criticize reports from certain other laboratories in the State on the ground that exercise levels are unreasonably high. The proposed exercise levels, it seems to me, are consistent with studies which I have read which demonstrate exertional levels in coal mining employment, and should be adequate to detect impairment relating to occupational pneumoconiosis while excluding that due to unrelated factors. Additionally, this will permit a much needed standardization of testing from one laboratory to another, so we can,

in effect, compare apples to apples.

In conclusion, I simply would like to commend the Commissioner and all those who had a hand in developing the Proposed Rules for the effort that has gone into making them balanced, fair and reasonable. There may be some adjustments made in them, areas in which I would have no objection to adjustments being made, but I believe, generally, that the application of these Rules will reduce the amount and cost of litigation of occupational pneumoconiosis claims to the benefit of claimants and employers alike and result in awards based on evidence rather than speculation, thus reducing the number and expense of appeals.

Thank you, Mr. Mitchell.

MR. MITCHELL: Thank you, Mr. Beeson.

Anyone else care to speak?

There being no further comment, then this hearing is adjourned.

(THIS HEARING IS CONTINUED TO THE JUNE 21, 1985 PUBLIC HEARING IN MORGANTOWN, WEST VIRGINIA AT 2:30 P.M.)

JUNE 21, 1985
2:00 p.m.
MORGANTOWN, WEST VIRGINIA

MR. MITCHELL: Good afternoon, Ladies and Gentlemen. Thank you for coming.

The purpose of this meeting is to afford to the public an opportunity to offer comment upon Rules and Regulations that have been promulgated by the Workers' Compensation Commissioner pertaining to medical standards for examinations to be performed on claimants for benefits to be received on account of occupational pneumoconiosis.

The Commissioner, Mary Martha Merritt, would like to have been here to meet with you today, but her schedule is so busy that she couldn't be here, and she has asked us to appear on her behalf. My name is William Mitchell; I am employed by the Commissioner.

If anyone has not already received a copy of these Rules, we have copies here, and if you would like a copy, just raise your hand and the Court Reporter will bring you a copy.

The way we will proceed here today is that we will just make a few brief remarks about the Rules, and then the remainder of the time will be allotted to you to offer whatever comment you care to make pertaining to the Rules and their effect.

These Rules, you may notice, begin at Section 20.8 and you may wonder why that is. The reason is that these Rules are in the form of an amendment to this Series of Rules (indicating Rules

and Regulations, West Virginia Workmen's Compensation Fund - filed in the State Register 12-17-82), which is the major Series of Rules governing the operation of the Workers' Compensation Fund. When these Rules have been finalized, they will become a part of this Series of Rules.

These Rules have been promulgated, as indicated on each page of the Rules, as EMERGENCY Rules. They are also identified at this time as Proposed Legislative Rules over which the Legislature has final authority, as provided by the Administrative Procedures Act of the State law. After all the oral and written comment has been received - and as you probably know from the notices that were disseminated State-wide, there were scheduled three hearings. One was held in Beckley, West Virginia on May 31, 1985; one was held in Charleston, West Virginia on June 14, 1985; and this will be the final hearing.

Likewise, today is the last day for submission of written comment to the Commissioner for consideration. After all the oral and written comment has been received, it will all be incorporated in a transcript which will then be considered by the Commissioner, who will then amend these EMERGENCY Rules to create the Proposed Legislative Rules which will then be submitted to the Legislature for their deliberation. The Legislature, after having considered them, will act upon them at the 1986 Session of the

Legislature. Thereafter, a final filing of the Rules will be made, and at that time the Rules will become effective as Legislative Rules which will supplant these EMERGENCY Rules.

Now, then, let's move on to our purpose for being here, which is to receive your comment. First, let's just do a little survey to figure out our timing. Could we see a show of hands of those persons who desire to offer comment? (Nine)

I assume that some of you folks may need to travel, or for other reasons, you may prefer to speak as soon as possible and get away. Would anyone prefer that to staying through the whole proceeding? (None)

We have just a couple of ground rules regarding how the comments will be received. We invite any relevant comment that you care to make, any analysis or criticism of the Rules, and particularly any suggestion or recommendation you care to offer that you believe could improve the content of the Rules or their effect. There will be no specific time limit upon individual comments. Obviously, we will have plenty of time with half a dozen of you indicating a desire to speak. If your comments are in writing - and I notice that several of you have already provided copies to the Court Reporter. If others have any comments in writing, or if you have any written information in support of your oral comments that you would like to have considered, if you will just leave it with the Court Reporter, we will be happy to include it in the transcript.

Now, then, I would like to ask that when each person comes up to speak, if you'd just use this microphone to my left, and, please, when you begin, identify yourself with your name and the name of any firm or organization that you may represent, and if not associated with any firm or organization, please just make a brief statement to identify the nature of your interest in the Rules. With that, who would like to be the first speaker?

DR. LAPP: My name is N. LeRoy Lapp, M. D. I am Professor of Medicine in the Pulmonary Disease Section at West Virginia University Medical Center here in Morgantown. I am requested to speak on behalf of Attorney Beeson of Charleston.

My comments on the Proposed Rules of the Workers' Compensation Fund, Legislative Rule 23-1, Series I, Section 20.8 are in writing, for the most part, and I have handed copies to the Court Reporter and to the members of the Board present. Since they are in writing, I don't feel it's necessary to deal in precise wordings, unless the Board wishes me to repeat this verbatim.

I shall indicate that I believe that these standards for medical examination are an attempt to insure uniform procedures in administering and interpreting ventilatory function tests and arterial blood gas studies. I find this an extremely laudible goal and a most welcome development, having served with the American Thoracic Society on the Committee, the Standardization Project of

the American Thoracic Society, what is known as the Snowbird Conference on Standardization of Pulmonary Function, and have recognized that the American Thoracic Society and the American College of Chest Physicians, as well as the National Institute for Occupational Safety and Health have adopted the standards proposed by the Snowbird Conference as their recommended standards for performance of pulmonary ventilatory function testing.

As regards the proposals in the proposed standards, I have two comments: One, the proposed standards allow a 7% or 100 ml - whichever is greater - variation between the largest and the next largest forced vital capacity or FEV1 of the ventilatory tests. The standards proposed by the professional organizations and NIOSH have been 5%, or 100 ml - whichever is greater. I think that to depart from that is to recognize a significantly more lenient criterion than proposed by the agencies cited above. The second comment has to do with Page 3, Section II, which seems to mandate that the maximal voluntary ventilation test be performed in the sitting position, but the previous paragraphs allow either the standing or the sitting position for the performance of the FVC maneuver. I find no serious medical reasoning to mandate the sitting position for the MVV test. I recognize that there is a possibility that subjects may become lightheaded or feel faint during the hyperventilation of that test, and it may be prudent to have some individuals, certainly, sit down

to do the test, but I don't think it is a mandatory requirement from the point of view of the performance of the test, or the interpretation thereof.

Other than those two what might be considered negative comments, I find that the proposed standards for ventilatory testing are laudible and I support them wholeheartedly.

I also support the idea of standarizing the technique and interpretation for the drawing of arterial bloods, the performing of exercise, and accounting for the differences in altitude of the testing facilities, so as to insure comparability of data that apply as much, if not more, than to the ventilatory testing. This is especially true of arterial blood gas testing.

On Page 6 (E) there is a mandate that the resting sample of arterial blood be drawn by direct puncture with a 22-gauge needle and heparinized syringe. I personally see no need to mandate the size of the needle, and no need to exclude the possibility of using an in-dwelling catheter to obtain that sample, although I agree there is no necessity of placing a catheter if exercise is not going to be performed. I do believe that needles smaller than a 22-gauge needle can be used in skilled hands to obtain valid arterial samples by direct puncture.

On Page 6 (G) - if an arterial blood sample is analyzed immediately, there is no need for it to be iced. I think this is a

contradiction of terms in the proposed standards. The words should be "and/or," I think. That is, it should be analyzed immediately, or iced. However, simple icing of the sample is not sufficient to stop metabolic activity of the blood cells. The sample must be immersed in an ice containing water, not simply surrounded by ice, to rapidly stop cell matabolism, and I cite a number of references in my written comments to support this.

On Page 6 (I) the standards appear to mandate a bicycle ergometer for the exercise and the treadmill only as an alternative if the subject, for physical reasons, is unable to ride the bicycle. I think this would work a serious hardship and require many testing facilities who now use treadmills to invest in new equipment. There is a sufficiently large body of data in the literature to indicate that at comparable external workloads the oxygen uptake and metabolic work performed are, for practical purposes, the same whether performed on a treadmill or a bicycle ergometer. The only proviso is that the work levels be comparable. There are differences between the two methods in regard to work levels. I strongly recommend that the Proposed Regulation be changed to accept either bicycle ergometer or treadmill as acceptable. In this regard, 75 watts or 450 Kpm at 50 to 60 revolutions per minute on a bicycle ergometer is approximately the same as 2.0 mph and 10% grade on a treadmill for a 70 Kg man. While it is desirable to exercise a subject at 125 watts

on the bicycle as a second level, or at the comparable value of 2.5 mph and 15% grade on the treadmill, it must be recognized that for a 70 Kg man of age 65, this would result in his exercising to approximately 83% of predicted maximal oxygen consumption for his age. Therefore, both workloads, either the 120 watts or the 2.5 mph 15% grade on the treadmill, should be required for subjects under 65 years of age, and the upper load should not be required for those over 65 years of age. I think this is medically sound, not to exercise people above 80% of their predicted maximal oxygen consumption. There are problems, unexpected events, that happen when people go toward maximal exercise over the age of 65.

On Page 7 (II), I support the idea of an altitude correction for the arterial blood gas value before applying the value to the table to obtain a percent impairment. There are numerous studies in the literature discussing the theoretical basis for a significant effect of altitude on measured arterial oxygen tensions. And I cite the work of Wasserman, who reported an average of 4 to 5 mmHg lower PaO2 for each 1000 feet of elevation. Reeves found an average drop of arterial oxygen tension between Lexington, Kentucky, which had an altitude of approximately 1000 feet, and 3 hrs. later, in an altitude chamber which simulated an altitude of 15,000 feet, an average of 3.7 mmHg decrease in arterial oxygen tension for each 1000 feet of elevation. Lenfant and colleagues, in a review article,

showed that most of the adaptive mechanisms found in long term residence or sojourners at altitude are of little consequence or difficult to measure up to altitudes of 1000 meters or 3000 feet. Thus, the effects of lowered atmospheric oxygen are almost directly reflected in the arterial blood gas oxygen pressure uncomplicated by compensatory mechanisms up to that 1000 feet. The Intermountain Thoracic Society shows data for altitude correction of approximately 4 to 5 mmHg for each 1000 feet of elevation. And Dr. Petty, who compared arterial blood gas values in Denver, Colorado, and at sea level, showed a range of from 2.9 to 4:8 mmHg lower arterial oxygen tension for each 1000 feet of elevation difference. Our own experience of reviewing measurements of arterial blood gases taken on the same subject at different times in different laboratories situated at altitudes of approximately 2400 feet and approximately 600 feet above sea level often demonstrate oxygen pressures that are 7 to 10 mm lower at the higher altitude on an average value of 4 to 6 mmHg per each 1000 feet of elevation. I, thus, believe that I have supported the view that an altitude correction should be made up to 3000 feet or 1000 meters, independent of any compensatory mechanisms of residence at altitude.

On Page 7, the table for impairment of pulmonary function. Rather than a single value for arterial oxygen tension, both resting and exercise, to qualify for the various degrees of

impairment, it would seem more equitable to have a table that includes the pCO2 as well. This is what the Social Security Administration did in their standards under 3.01 Category of Impairments, Respiratory, Table III. Since the Social Security System is a total disability system, it would be sensible to set out their values in Table III as equal to total impairment in the proposed standards and to set intervening values between 0 and total impairment on a continuum but adjusted for the pCO2 values. This would be more equitable than a single value of pO2, since an individual who was hyperventilating and barely keeping his pO2 normal, because of disease, would not be penalized as he would be if a single value were used without regard to the pO2. I have constructed a table which would account for the pCO2 values between 30 or below mmHg and 40 or above mmHg, and pO2 values that, if they were equal to or less than these tables, would correspond to the percentage impairment at the head of the column at the top of each column. And in this table I have set as total the Social Security requirements, and then I have worked up to no impairment, or zero impairment, based upon the adjustments for pCO2 and pO2 simultaneously obtained.

I heartily concur that exercise pO2 values that rise above the resting pO2 values should indicate a lesser degree of impairment of arterial blood gas. Values that are less than the resting values during exercise would indicate a greater degree of impairment of arterial blood gas transfer.

Finally, I agree with the position that any medically acceptable tests or procedures reported by a physician would be given appropriate consideration in the decision of the Board. On the other hand, in the interest of uniformity and equity, I feel it is important that the Board establish levels of exercise that are standardized and can be done at different testing facilities but interpreted with a commonly agreed upon interpretation. Five minutes of such exercise, whether treadmill or bicycle, should suffice to reach a steady state for the purposes of this examination. Much more important than whether the exercise is conducted for five or six minutes is the fact that the arterial blood gases must be drawn during the exercise. The practice of performing arterial punctures after exercise is to be condemned as it may provide misleading information in some individuals.

DR. WALKER: May I ask Dr. Lapp one question?

MR. MITCHELL: Certainly.

DR. WALKER: Discussing the exercise level, your paper indicates, on your second level of exercise, 120 watts, and I believe you mentioned 125 watts.

DR. LAPP: The second level of exercise I mentioned was 120 watts on a bicycle, which I calculated corresponds to 2.5 mph and 15% grade on a treadmill as being equivalent for a man of the same weight.

DR. WALKER: Thank you.

MR. MITCHELL: For the benefit of those folks who came in after we had begun, the only thing that you missed was that we made just a few brief remarks about the Rules and their present status and the future developments that will occur. And then we explained that the remainder of the time would be allocated to you so that you can make whatever comments you care to offer. Dr. Lapp was the first speaker. Who would like to be the second speaker?

DR. NEILSON: I am Dr. Thomas Neilson. I am the Assistant Medical Director at Consolidation Coal Company corporate offices in Pittsburgh, and I just have a few comments, which I have given to the transcriptionist, so I'll just kind of summarize.

The standards for the medical examination outlined in this Legislative Rule are a definite improvement over the present situation. These guidelines setting standards for pulmonary function testing will provide the Commissioner with meaningful data relating to the degree of impairment, the relationship of the impairment to the occupational exposure - specifically in our case the concern being coal workers' pneumoconiosis. It is important to restate that the chest x-ray remains the cornerstone of the determination of coal workers' pneumoconiosis. It provides a semi-quantitative estimate of the dust burden the miner was exposed to during his career. The pulmonary function studies are useful to assess the degree of

impairment; and if a restrictive pattern is seen, they confirm the x-ray diagnosis of coal workers' pneumoconiosis.

One test that might be added to the proposed standards is the use of bronchodilators in the assessment of the patient. These bronchodilators would detect bronchospasm and indicate if there is a treatable impairment which is not due to coal workers' pneumoconiosis.

While testing after bronchodilators need not be mandatory, the examining physician should have the option of including such information in his report. This option could be provided as it is stated for in the changes announced by the Department of Labor in Federal Register, Section 718.103 - and I cited a quotation in there in which they mentioned a change allowing the physician to use bronchodilators. I won't read that quote, but it will be in the report. I think there would be an advantage to having this mentioned as an option in the final regulation to better delineate the etiology of the obstructive impairment, especially when the ventilatory studies are abnormal. And this would help separate out the asthmatic, chronic bronchitic and emphysematous patients from those with respiratory impairment which is mainly due to coal workers' pneumoconiosis. This is of value since the impairment caused by coal workers' pneumoconiosis is due to a restrictive rather than obstructive airway disease.

That's the extent of my comment.

MR. MITCHELL: Thank you, Dr. Neilson.

Who would like to be the next speaker?

DR. RENN: I am Dr. Joseph Renn. I am appearing as an individual physician who is engaged in the private practice of pulmonary disease and of occupational lung diseases. I am Chief of the Pulmonary Function Laboratory at Monongalia General Hospital, Medical Director of Respiratory Therapy and of Pulmonary Rehabilitation and also Medical Director of the Home Respiratory Care Program through Monongalia General Hospital. I would like to submit my curriculum vitae in evidence of my qualifications in the sub-specialty practice of pulmonary disease and occupational lung diseases.

I have already submitted a letter dated June 13, 1985 to Ms. Merritt regarding the Proposed Rules of the Workers' Compensation Commissioner, and I publicly am commending the Workers' Compensation Fund for the Proposed Rules and for the degree of regulation which they will allow and the quality control which they will allow in administering this testing procedure.

In the Paragraph II (G) which is regarding the forced expiratory volume in one second measurement, the proposed 7% variation between the two greatest FEV1's is more lenient than that proposed by the American College of Chest Physicians, and I have quoted the reference. The statement by the College is to the effect

the two best of three acceptable spirograms should not vary by more than 5% of the largest value or by more than 100 ml - whichever is greater. I feel we should adhere to the more stringent quality control parameter and the national standard of 5% rather than the more lenient of 7%. In order to make it easier to evaluate the pulmonary function tests and whether or not they have fallen within the standard, I feel also that we should report the largest numerical value for the FEV1 - which is the present standard - and that we should also report the next largest numerical value for the FEV1, and then an evaluating physician can easily determine whether or not it falls within the 5% standard or the 7% standard, whichever is accepted, and not have to actually measure the graphs themselves.

In the section which is labeled, ARTERIAL BLOOD GAS STUDIES, Paragraph (I), the bicycle ergometer is being mandated in preference to the treadmill. We've already heard testimony to the effect that the literature is replete with the argument of whether the treadmill is better than the bicycle ergometer or the bicycle ergometer is better than the treadmill. In reality, that will probably never be resolved. There are many reasons - financial, economic goal, medical physiological, etc. - for using one versus the other, or maintaining the exercise that is already being used. I believe that we should allow one or the other to be used, but not one to be mandated over the other, and certainly not the bicycle

ergometer to be mandated in preference to the treadmill. There are several reasons which I have given for this, and I have also added that the hand ergometer should be used in performing exercise studies when a person has lower extremity problems or back problems and is not able to use something that requires the lower extremities. There are many hand ergometers available that work in exactly the same way as the bicycle ergometer and could easily be substituted in order to obtain a more valid exercise study when it is not possible physically for the person, because of lower extremity or back problems.

Under the Section ARTERIAL BLOOD GAS STUDIES, (II), I feel that it is certainly commendable we are recognizing the effect of altitude. As has been heard here previously, there is an approximate loss of 22 torr for every 1000 feet of altitude which is gained. If one uses the arterial alveolar oxygen gradient equation, this translates to approximately a 4.6 mmHg loss in arterial blood gas, arterial pO2, with every 1000 feet of altitude which is gained. We've heard testimony before from Dr. Lapp alluding to several studies which show anywhere from approximately 3-1/2 up to 6 mmHg loss of altitude, and this certainly falls within that. I feel that this should be maintained; that the figure that has been proposed, 5 mmHg difference, is excellent; that we should also include the carbon dioxide tension, the pCO2, in evaluating the pO2 and the level of impairment. If it were also possible, we also should include the

age regression formula and I have included one reference, of which there are actually many, in my written comments.

In the TABLE FOR IMPAIRMENT OF PULMONARY FUNCTION, the FEV1/FVC ratio has been put forth as another measurement for determining level of impairment, and I feel that the age regression formula should be added to this. It could be easily calculated for both male and female and put into a table form, much as has already been done in the recent edition of the Social Security Tables. The recent edition of the Social Security Tables use the age regression formula and created a table for both male and female, and they quote their reference as the American Review of Respiratory Disease, Volume 123, Page 659, and the date is 1981. I quoted a somewhat older reference, which is given in my written comments and dated 1973.

In the second paragraph under the Section TABLE FOR IMPAIRMENT OF PULMONARY FUNCTION, it states, essentially, that excercise pO2 values greater or less than resting will indicate, respectively, a lesser or greater degree of impairment of pulmonary function, and in my written comments, I have underlined the two words, pulmonary function. The exercise pO2 may be less than resting in the absence of any pulmonary dysfunction. Any decrease in cardiac output, for whatever reason, will diminish the arterial oxygen tension. This is found in the fourth edition of Lung Function by Cotes, published in 1979. It's found in various places throughout

the book, but quite extensively throughout Chapter 16, and specifically on Page 462. It would be more accurate to state: If they are less than the resting values, it will indicate a greater degree of impairment of either the cardiovascular or respiratory systems.

This concludes the comments which I have to make and I, again, commend the Commissioner on the Proposed Rules. Thank you.

MR. MITCHELL: Thank you, Dr. Renn. Doctor, your written comments were received in the office and they will be included as an exhibit in the transcript, along with all the other written comments.

MR. CHRISTIE: My name is James Rodney Christie, and I am Vice President of Grafton Coal Company in Bridgeport, West Virginia. In addition to Grafton Coal Company, I am also here today on behalf of Bruce Mining Company, Barbour Coal Company and Tygart Coal Company.

I have been associated with the everyday administration of coal operations in West Virginia for over ten years. As such, I have seen first-hand the effect that employment-related costs have had on the ability of employers to operate successfully in West Virginia. While I do not in any way advocate a system which denies benefits to deserving claimants, I believe that our compensation system has been distorted to permit the payment of benefits in many cases, regardless of the evidence, to persons who are in no way entitled to recover them. This places an unreasonable and unjustifiable burden on the State's employers, and, consequently,

adds to West Virginia's negative business image as well as its economic well-being.

I believe the Commissioner should be commended for her efforts to develop a set of Regulations which help to provide a uniform procedure for the evaluation of disability due to occupational pneumoconiosis. Although I earnestly believe that the weight of medical opinion would support more conservative standards, the proposed standards are apparently intended to satisfy the mandate of the West Virginia Supreme Court of Appeals.

It is not my purpose today to go into minute detail on the various provisions of the proposed standards. Additional comments are being filed today on behalf of the four companies I am representing. These written comments will specifically address individual issues in the Proposed Rules. I would simply like to note that I believe the Proposed Regulations are, for the most part, excellent in their coverage and should be adopted. This approach will help to ensure a uniform system with predictable results and comparable testing. Certainly both claimants and employers are entitled to fair and even-handed treatment. I believe that the application of these Rules will do much to promote such treatment, and will probably reduce the amount and cost of litigation of

occupational pneumoconiosis claims to all concerned.

On behalf of Grafton Coal Company, Bruce Mining Company, Barbour Coal Company and Tygart Coal Company, I would like to thank the Commissioner for giving us the opportunity to comment on these proposed standards, and I would like to, once again, commend the Commissioner and all those who had a hand in developing the Proposed Rules for the effort that has gone into making them balanced, fair and reasonable. Thank you.

MR. MITCHELL: And who will be the next speaker?

MR. MCCLAUGHERTY: I am John McClaugherty. I am a partner in the law firm of Jackson, Kelly, Holt & O'Farrell, with offices in Charleston and Morgantown, West Virginia, and in Lexington, Louisville, and Owensboro, Kentucky. Our law firm represents numerous employers in Workers' Compensation cases in both states. I will address and comment separately on four aspects of the Proposed Regulations: (1) the technical requirements for the performance of ventilatory and blood gas tests; (2) the adjustment of blood gas test results for altitude; (3) the proposed table for the evaluation of impairment due to respiratory disease; and (4) the proposal to permit additional testing where tests results are in conflict.

The technical and quality standards for ventilatory and blood gas tests are consistent with standards generally being used clinically and with the standards specified in other disability

programs. I do not understand that any of the expert witnesses who have presented testimony thus far at any of the hearings have found any major deficiencies in these proposals, and the standards would not seem to require any major changes in the testing procedures already being utilized in reputable pulmonary function laboratories in the State.

I would note two concerns, however. The first relates to the reproducibility of ventilatory studies. These Proposed Regulations require that the two best efforts on the FEV1 maneuver vary by not more than 7%. You have heard Dr. Lapp and Dr. Renn today both suggest that the permitted variation should not be more than 5%. I agree with that and inasmuch as one of the primary purposes of these Regulations is to deal with medical evidence which conflicts, I would urge the Commissioner and the Board to adopt the most stringent standard for reproducibility. I would respectfully submit that many of the discrepancies in test results, at least as they arise in the context of ventilatory studies, would be eliminated if the quality of those test results was generally improved.

The second concern is that I would suggest that the Regulations include a requirement that any laboratory reporting results in occupational pneumoconiosis claims perform the tests on equipment which has been calibrated, serviced and maintained in accordance with the instructions of the manufacturer. Test results

produced on equipment which has not been properly calibrated, serviced or maintained clearly should not be considered valid test results for the purposes of evaluating impairment.

With respect to the second topic, namely, adjustments for altitude in blood gas test results, there is no question. As both Drs. Lapp and Renn have stated here today, blood gas tests are relatively difficult to perform properly, and, consequently, it is important that the standards be clearly recognized. The second edition of the Guides to the Evaluation of Permanent Impairment of the American Medical Association recommends that blood gas tests be reserved for selected cases, that testing be done during exercise. Blood gas testing has nonetheless been an integral part of evaluating impairment due to occupational pneumoconiosis for many years in this State. Doubts about the reliability and significance of this testing have historically been resolved in favor of the individuals claiming benefits. I do not propose to argue that this decision be reversed, or that we adopt entirely the view of the American Medical Association.

It is nonetheless important to recognize that results on blood gas testing can be affected by a number of factors totally unrelated to lung disease. The one factor that can be controlled and corrected most easily and reliably is the effect of altitude on the pO2. The partial pressure of oxygen in the air we breathe at

altitude is lower than in the air we breathe at sea level. As a consequence, the pO2 of the blood gas is necessarily lower at altitude than it is at sea level. This difference in the pO2 which results from differences in altitude has absolutely no relation to the condition of the lungs at all. If I produce a pO2 of 75 in Charleston, I will produce a pO2 of 66 in Beckley, if all the other conditions of the testing remain the same. Producing the pO2 of 66 in Beckley will not in any way indicate that my condition is worse than the measurement in Charleston. To the contrary, it indicates that my condition is the same.

None of the medical experts who have testified has denied that the pO2 does, in fact, drop with altitude, or denied that the formula proposed by the Commissioner to adjust for that natural occurrence is accurate. Dr. Rasmussen has, to the contrary, testified at claims hearings that altitude alone accounts for a 10 millimeter of mercury difference betwen his pO2 results and those obtained in Charleston.

In this regard, Mr. Mitchell, I would file, as a part of the record at this hearing, the transcript of Dr. Rasmussen's testimony in the claim of Lot E. Tackett vs. Buffalo Mining Company, Claim No. 79-101957, taken on February 17, 1983 in Beckley, West Virginia, in which Dr. Rasmussen acknowledges that the difference is 10 mmHg between Beckley and Charleston.

Several witnesses have noted that the amount of the adjustment proposed by the Board is greater than that used in the Federal Black Lung Program, and that the Federal formula should be used instead. Others have argued that no adjustment should be made at all. The fact of the matter is that comments to the Federal Black Lung Regulations make it clear that the Department of Labor's altitude adjustment was adopted for administrative convenience rather than accuracy.

In this regard, Mr. Mitchell, I would refer you to the 45 Fed. Reg. 13712 (Feb. 28, 1980).

The Commissioner should be commended for shifting that emphasis, and undertaking the responsibility for making a more precise adjustment. Once the changes which occur with altitude are acknowledged, it would simply be irresponsible to ignore those differences, and I think this is the point which has been made so eloquently today by Drs. Lapp and Renn. I can think of no good reason why a claimant living in Charleston should have to go to Beckley to have his blood gases tested in order to get the benefit of an artificial change in his measurements, which has no relation to the amount of impairment he may have sustained.

With respect to the Tables for Evaluating Impairment, some critics have argued that the table for evaluating impairment, insofar as it relates to "total" impairment, is more stringent than

the standards applied either to Social Security disability claims or Federal black lung claims. There are some very good reasons why the standards used to evaluate impairment in this program should be different than those used in either of the Federal programs, but before elaborating on those reasons, I think it should first be noted that the differences are not as great as have been claimed.

With respect to the ventilatory studies, the standards used are almost exactly the same as those used for Social Security disability cases. If one looks at the tables published in Section 3.01 of Appendix 1 to 20 C.F.R. Part 404, Subpart P, the standards used to determine a totally disabling impairment are, in fact, approximately 40% of predicted values for a 60 year old man; in other words, the standards for determining total disability under the Social Security disability regulations are very similar to those proposed in these Regulations as they relate to ventilatory studies.

It should be noted that the tables used in both the Social Security Disability Program and the Federal Black Lung Program operate in systems which are quite different and much less elaborate than the West Virginia Workers' Compensation system. First of all, neither Federal program authorizes the payment of compensation for partial disability. An individual in West Virginia with some impairment who continues to work could be entitled to a substantial permanent partial disability award, but would receive nothing under

either the Social Security Disability or Federal Black Lung Program. Secondly, claimants of West Virginia Workers' Compensation benefits can reopen their claims if their condition progresses or worsens, and establish their entitlement to additional benefits. Thirdly, impairments due to all injuries and occupational diseases may be cumulated for purposes of qualifying for a permanent total disability award under the Second Injury Statute in West Virginia. All of these factors combine to make the West Virginia Workers' Compensation system a much more generous and flexible system than either of the two Federal programs to which it has been compared.

Dr. Rasmussen has included in his comments an alternative table for the evaluation of impairment based on blood gas studies. The major problem with his table is that it will clearly compensate many individuals who have normal lung function and absolutely no limitation on their ability to either perform work or enjoy life. The forms with which Dr. Rasmussen reports his test results indicate a normal pCO2 of 38 and a low normal pO2 of 71 for individuals of retirement age. These results would, under the table suggested by Dr. Rasmussen, show a 15% impairment when adjusted for altitude. With all due respect to him, his criteria for determining the existence of impairment are just too easily met. He has published studies in which he admits that as many as 98% of the individuals he tested over a given period showed evidence of

impairment in gas exchange, and that the abnormalities he found in gas exchange were not closely related to age, years of coal mine employment, or smoking history. At the same time, he has acknowledged that this "impairment" does not translate easily to disability and that many of the individuals who showed "abnormalities" in gas exchange were asymptomatic. This system already compensates individuals on the basis of a diagnosis of occupational lung disease without evidence of impairment. There is no sound justification for further expanding the definition of what should be compensated, so that we now find compensable impairment in persons who have no symptoms and are in no way disabled.

Fourthly and lastly, the Proposed Regulations provide that the Commissioner may, where there is a discrepancy in the test results obtained in a claim, direct or request additional testing or evidence for purposes of determining the actual level of impairment sustained by the claimant. I commend this proposal, and I think it will go a long way toward alleviating much of the litigation and conflict which has been occurring in occupational pneumoconiosis cases.

One very important factor which affects the reliability of laboratory test results has, however, been overlooked in the Regulations. There are a number of professional groups which monitor the quality of laboratory performance, either on a voluntary basis or

as a condition for certification. For example, hospital laboratories participate in surveys which test their competence in the performance of various laboratory procedures as a requirement of their certification by the American Hospital Association. Dr. Rasmussen's laboratory in Beckley participates on a voluntary basis in a similar program being operated by the American Thoracic Society. Participation in these surveys does not guarantee the accuracy of every test procedure which is done, but it does indicate that major systematic problems in the laboratory will probably be detected and corrected. Confidence in the procedures of smaller laboratories which undergo no outside monitoring cannot be as high. If certification or participation in an outside survey is not to be a requirement for any laboratory presenting test results in a claim, I do think that this is a factor which should be taken into account when weighing disparate results.

In conclusion, the Occupational Pneumoconiosis Board, the Commissioner and her staff should be commended for their efforts with these Regulations. They are relatively simple and direct, despite the complexity of the medical issues with which they deal. I do not believe that you have been presented with any testimony which would indicate that individuals with functional limitations as a consequence of occupational lung disease will not be fairly compensated under these standards. If such testimony were presented,

I do not believe it could be supported by reference to the medical literature. These standards are comprehensive and fair, and I recommend that they be adopted with the few minor elaborations which have been suggested here today.

Thank you for giving me the opportunity to speak, and I would like to file a statement which has been prepared by Dr. Richard P. O'Neill, a Governor of the American College of Chest Physicians, discussing the Rules and Regulations, that was prepared at my request. And it is tendered to you at this time for filing as a part of the record at this hearing.

MR. MITCHELL: Thank you, Mr. McClaugherty. These documents will be included as exhibits in the transcript with the other written comment.

Who would like to be the next speaker?

MR. CARRICK: My name is Patrick Carrick; I am an attorney engaged in the private practice of law in Fairmont, West Virginia, and devote a significant portion of my practice to representing claimants in Workers' Compensation cases.

First of all, I think all of us who do a substantial amount of this work or have any significant contact with the Compensation program would support the effort to standardize testing procedures and find some uniformity and some conforming standards upon which we can rely. Apart from that, however, it is still well-established that our Workers' Compensation Act is remedial in nature

and still must be ultimately liberally construed to the benefit of claimants. I know there are those among us gathered here today who have perhaps grown tired of having that liberality rule cited to them, and, in fact, hope to live to see its demise; however, at the present time, it is still in existence, and I would simply like to state to the Commissioner that in promulgating these Rules, these Rules must be reconciled with the remedial purpose of the Act, and any Rules adopted to implement the Act must keep that liberal standard in mind. With that in mind, it is unfathomable to me, and to others who represent claimants, that these Proposed Rules will, in fact, be more strict and more conservative than any of the Federal programs now in existence. I am referring to the permanent Regulations for the adjudication of Federal black lung claims and also the Social Security Disability Regulations as they relate to the assessment of cardiopulmonary impairments. So, rather than cite to the Commissioner specific examples, I would merely invite her to compare these Proposed Rules to both the Federal Black Lung Program and the Social Security Disability standards, where applicable, and see how the remedial purpose of the Act stands up against these conservative Rules.

Secondly, and just as one specific example, for instance, you'll find within the Social Security standards a finding of a pO2 which amounts to a finding that one cannot engage in any

gainful employment, would, under these Proposed Rules, entitle one to no more than a 40% permanent partial disability. That, I think, cannot be reconciled with the remedial purpose of the Act. And that is even before we factor in the adjustment for altitude. Mr. McClaugherty has pointed out that the altitude adjustment in the Federal Department of Labor Standards is significantly different than this. Indeed it is. In the Department of Labor Standards, there is no adjustment for altitude until the altitude is at least 3000 feet, so that under the examples given here between the lab in Charleston and the lab in Beckley or the lab in Bluefield, or some of the other labs, there would, in fact, be no adjustment at all under Federal Department of Labor Regulations. Again, it is medically feasible, I understand, to make some adjustment for altitude, but the amount of adjustment made here is not reasonable and has no rational basis, I do not believe. We also have to recognize this, though; those medical experts who have testified today, testified about the effect of altitude on pO2 level, have talked about the effect of altitude only. We then have to convert that and consider how the formula that is proposed here, in fact, reduces the ultimate award that claimants receive. As an example, if you have a result of pO2 at the clinic in Beckley, Dr. Rasmussen's clinic, to which Mr. McClaugherty has referred, with a pO2 of 60, that would entitle an individual, under the Proposed Rules, to a 30% award; however, when you factor in the

proposed adjustment for altitude that these Proposed Rules contain, that award would be reduced to half. And I see no rational basis for reducing, in half, one's award, based upon a slightly greater altitude between the two testing sites. And by slightly greater, I mean within any testing sites in West Virginia it's going to be, I assume, less than 3000 feet; yet, by electing testing sites, a claimant's award can ultimately be reduced in half.

I have some additional comments that have been offered to the Commissioner, and will take up no more time today except to state that, as I indicated, we do generally support the efforts to standardize testing, but we would caution the Commissioner to take into consideration whether these Proposed Regulations are so far removed from the ultimate intent of the Act that they would ultimately fail inevitable court scrutiny.

Thank you.

MR. MITCHELL: Thank you, Mr. Carrick.

Who would like to be the next speaker?

MR. YAHNKE: My name is Wilbur Yahnke. I am the Director of the West Virginia Labor Federation, AFL-CIO's Compensation Services Program, as well as an impaired worker. The AFL-CIO represents more than 60,000 members and their families in matters relating to Workers' Compensation benefits, from application for to legal representation through the office of our general counsel.

As Director of that Program, I wish to speak to you on behalf of those thousands of persons who have no voice in these proceedings.

Initially, I would like to state that standardization of testing is the proper position for the Commissioner to take, and much appreciated, since it will allow clinicians around the State to be assured that their findings are "in line" with the O. P. Board's testing procedures.

Unfortunately, this commentator has no scientific or medical background on which to make proper value assessments of many of the Proposed Rules and must rely on medical consultation. From this perspective, I will address the agenda.

Ventilatory Function Tests - mandatory nose clip use. While the variety of testing rules proposed generally complies with that of the American Thoracic Society, there exists a deviation on those standards inasmuch as the ATS recommends nose-clip use, but does not require it. We would recommend the adoption of the ATS standards where they differ from the Proposed Rules.

Maximum Voluntary Ventilation - discussion with several doctors with considerable expertise in pulmonary medicine indicates that this test has little value, is cumbersome, works a hardship on the severely disabled and should be made optional, if not eliminated. Our recommendation is to permit the MVV to be optional.

If not, permit the test to be done in the sitting position pursuant to Rule 718.103 - U. S. Department of Labor.

Arterial Blood Gas Studies - direct puncture should be optional. As an alternative, an in-dwelling catheter may be used. Section G of that...subsection G of that section...this section should read, as other commentors have indicated: "All blood gas samples should be analyzed immediately or iced." There is no need to ice the sample if analyzed immediately.

Subsection I - as previously indicated, my expertise is limited and, in this particular area, non-existent. I would urge that very serious consideration be given to the objections and recommendations of Dr. Donald L. Rasmussen of Beckley regarding methodology. In addition, I would especially urge the Fund to adopt its own certification program for clinicians and laboratories relative to proficiency in blood gas studies, as recommended by Dr. Rasmussen.

Further, there is considerable objection to the Proposed Rule for altitude correction, since the Proposed Rule is considerably more stringent than that which is applied by the Social Security Administration or the Federal Black Lung Program. All indications are that the adjustments should be 1.67 mmHg per 1000 feet or 1 mmHg

per 600 feet. I recommend that value be adopted.

On the TABLE FOR IMPAIRMENT OF PULMONARY FUNCTION - On this subject, my initial comment relative to this section is the word "indicator." While it may be an indicator to the O. P. Board, in reality, the O. P. Board's recommendations become gospel internally and their findings translate to an award of disability. If these Rules are adopted, that translates to a grave disservice to the working West Virginians, since I suspect it has already been implemented. I strenuously object to the adoption of this table and cite the previous tesimony of Dr. Rasmussen and Dr. Wagner and their reliance on the Administrative Rules of the U. S. Department of Labor and the Social Security Administration.

In addition, I would remind you that the intent of our Workers' Compensation statute is remedial and should be compassionate when considering the issue of impairment, being ever mindful of not only the medical aspects of disability, but also of an individual's ability to work, to obtain and retain employment, and to the quality of life - not just being alive.

In summation, I would remind you and the Legislative Rule-Making Committee, although I doubt the necessity, of how West Virginians suffered at the hands of Social Security in the early part of this decade. Now I must report to my membership that it may be more difficult to obtain fairness from the West Virginia Workers'

Compensation Fund than Social Security. I would urge that serious evaluation be given to my objections, and others, and that your position be modified to reflect a more humane, compassionate and realistic position.

Thank you very much.

MR. MITCHELL: Who would like to be the next speaker?

MR. BENJAMIN: I am Brent Benjamin. I am an associate with Robinson and McElwee in Charleston, West Virginia. I work with Joe Beeson, who I believe spoke at the last hearing in this matter. I am here today on behalf of several companies and corporations which we represent: Appalachian Power Company, Barbour Coal Company, Bruce Mining Company, Cedar Coal Company, Central Appalachian Coal Company, Centurial Products Corporation, Grafton Coal Company, Kaiser Aluminum and Chemical Corporation, Southern Appalachian Coal Company, Southern Ohio Coal Company, Tygart Coal Company, and Windsor Power House Coal Company.

We wish to commend the Commissioner and all of those who had a hand in putting forth these Proposed Rules. We believe that they do an excellent job of standardizing a system which desperately needed standardizing. We also appreciate the opportunity to put forth our comments today. We have, earlier this afternoon, filed on behalf of the above-mentioned companies and corporations our comments to these Proposed Rules, and I will not, at this time, go into a line by line recounting of them.

I have attended the last two hearings that have been held in this matter, the Beckley hearing on May 31 and the Charleston hearing held last Friday.

Overall, there appears to be some concern by certain individuals about the altitudinal adjustment that's included in the Proposed Rules; therefore, I would just simply have two remarks to make, or, two statements to make regarding altitudinal adjustment in blood gas testing, and, with that, then, I will end my remarks.

The concept of altitudinal adjustments in arterial blood gas studies is an excellent and necessary method by which to standardize results obtained at different laboratories around West Virginia. The variation caused by altitudinal differences is widely recognized by pulmonary physicians. Three esteemed physicians have so spoken today. We'd also like to refer the Commissioner to "Appendix C" of our comments in which Dr. Rasmussen, in Workers' Compensation testimony, also acknowledges this difference. Other examples from medical literature are cited in our written comments and I will not, now, go into those. They are in our written comments. Suffice it to say, I believe that most medical experts would agree that the results obtained at, for instance, Harpers Ferry, the lowest point in the State, and those obtained at Bluefield for pO2 values for the same individual would be different. I have heard many people discussing the Department of Labor standards which

would, in a sense, ignore this difference. We believe that the Proposed Regulations reasonably incorporate such a difference. I have heard today Mr. Carrick discussing the Department of Labor standard that would effectively eliminate the altitudinal adjustment from zero to 3000 feet. I have heard Mr. Yahnke relying on Dr. Rasmussen's comments which were filed at the Beckley hearing. I have also heard Mr. McClaugherty, and am aware that he has filed, on behalf of himself and his clients, I suppose, the Lot Tackett transcript. That being the case, I would simply, at this point, like to refer the Commissioner to the Lot Tackett testimony in which Dr. Rasmussen discusses the 3000 feet level for the Department of Labor. I would refer the Commissioner to Page 21, at which point Dr. Rasmussen testified that the Department of Labor altitude breakdown was, in his words, "...primarily done as a matter of convenience more than a matter of absolute medical difference of opinion." Dr. Rasmussen then went on to indicate that, as for himself, in his words again, "...there is quite a bit of discrepancy between, for example, sea level and 3000 feet." We believe that this, in addition to the point that Mr. McClaugherty pointed out, that Dr. Rasmussen testified at the same hearing, that there is a 10 millimeter difference between Beckley and Charleston is clear indication that even Dr. Rasmussen is aware of the difference between Charleston and Beckley and, therefore, I believe that the standards should stand, and on behalf

of our clients, we believe that the altitudinal difference should stand.

One other point I would like to make regarding blood gas testing, and I believe it was referred to earlier today by Dr. Renn. We note, with interest, the absence of any adjustment for age in pO2 and DLCO testing in the standards. Multiple studies have documented the effect that age can have on blood gas testing. We cite several of those in our comments. I would also like to again refer to the Lot Tackett brief which Mr. McClaugherty introduced, in which Dr. Rasmussen indicates that, yes, there is, that he would acknowledge the validity of this aging effect, and I believe that is at Page 12.

I won't go into any more detail. I think that quite a bit has been said here already today. I would, however, again like to tell the Commissioner that we appreciate the opportunity to set forth our comments in written form and, today, in oral form, and we believe that the Commissioner should be commended for the standards that have been put into effect. We believe they are excellent, and for the most part, should be adopted as they are.

Thank you.

MR. MITCHELL: Thank you, Mr. Benjamin.

Who else would like to speak today?

MR. TEDRICK: My name is Steven Tedrick. I am manager of Workers' Compensation for American Electric Power in Lancaster, Ohio. I am

here today on behalf of our West Virginia operations, primarily Windsor Powerhouse Coal, Southern Ohio Coal Company, Central and Southern Appalachian Coal, as well as Cedar Coal Company. I would indicate that we have had an opportunity to review the Proposed Regulation changes relating to occupational pneumoconiosis and feel that the Commissioner is to be commended for the attempt to standardize such testing procedures. Comments have been rendered on our behalf by Mr. Benjamin, and we feel that the comments we have heard today are very important in considering the reassessment and promulgation of the standardization of Rules. I would like to thank you for an opportunity to comment today.

MR. MITCHELL: Thank you, Mr. Tedrick.

Who else would like to speak?

If no one else cares to offer any comment today, then I would simply like to close by thanking each of you who have offered your comments orally, and in writing, and I'd also like to thank those of you who just appeared to see and hear what is going on. We do appreciate your expression of interest in this happening.

Yes, sir, Mr. Carrick?

MR. CARRICK: I'm not trying to get an opportunity to speak twice, but I do have some written comment from another attorney that I would

like to file.

MR. MITCHELL: That's fine. They'll be included in the transcript. And, with that, this meeting is adjourned and these public hearings are concluded.

STATE OF WEST VIRGINIA
WORKERS' COMPENSATION FUND, to wit:

I, Grace Day, Reporter for the Workers' Compensation Fund, do hereby certify that the foregoing is a correct record of the proceedings.

Given under my hand this the 28th day of June, 1985.

Grace Day

Grace Day, Reporter

Exhibit 1

COMMENTS ON PROPOSED RULES

OF THE WORKERS' COMPENSATION FUND

LEGISLATIVE RULE 23-1

SERIES I, SEC. 20.8

STANDARDS FOR MEDICAL EXAMINATIONS

D. L. Rasmussen, M. D.
Appalachian Pulmonary Lab., Inc.
Beckley, WV 25801

D. L. Rasmussen, M. D.
Appalachian Pulmonary Lab., Inc.
306½ Stanaford Road
Beckley, WV 25801

The proposed legislative rules regarding standards for medical examinations in occupational pneumoconiosis claims contain some very valid and useful criteria. There are also some questionable rules, and there are several major problems with the rules.

The proposed standards for performing ventilatory function are excellent and in fact are almost identical to those used by the Department of Labor (718.103). One minor deviation is the requirement for performing the MVV (111) page 4, that the patient be in the sitting position. The standard in 718.103 is for the patient to be standing, which is used most often in practice. There is no reason to allow the patient to be standing or sitting for the FVC, but required to sit for the MVV.

There are several questions concerning the details of blood gas studies. For example, paragraph (e), page 6, states "---- a resting sample must be drawn by direct puncture with a 22 guage needle and heparinized syringe." There is no valid medical reason to make use of a direct puncture mandatory, when an equally valid sample can be obtained from an indwelling canula or catheter, so long as the sample is obtained after 15 minutes rest and with the patient in the sitting position. The direct puncture or catheter should be optional.

In paragraph (g), page 6, "All blood samples must be iced and analyzed immediately (in less than 10 minutes)---" This is apparently a typographical error, since there is no need to ice the

sample if it is to be analyzed immediately. The sentence should read "---or iced---".

All laboratories performing blood gas testing should be required to participate in the American Thoracic Society Blood Gas Proficiency Program or a comparable program.

Paragraph (I), page 6, states exercise must be performed on a bicycle ergometer unless there is some physical reason the patient cannot ride the bicycle, in which case a treadmill may by used. There is no valid medical reason to require bicycle ergometer exercise over treadmill exercise. So long as energy requirements are the same, there should be no significant difference.

The stated treadmill settings of 2.0 mph at 10% grade is a slightly lower energy requirement than 75 watts on the ergometer for a 70 kg subject, but the 2.5 mph at 12% grade has a significantly lower energy requirement than 120 watts of ergometer exercise. 2.5 mph at 15% grade is comparable for a 70 kg patient to 120 watts on an ergometer.

One other problem with the requirement that "If an added level of exercise is performed, it must be done at 120 watts on the bicycle, or on the treadmill at 2.5 mph at 12% grade." The mandatory use of 120 watts should be the upper limit of exercise, but not the only acceptable level. 120 watts (or its equivalent treadmill exercise) may be too severe for some subjects. Blood gas values obtained at exercise greater than 120 watts are not related to physical condition, but do exceed the requirements for many occupations, except heavy manual labor.

Energy requirements vary considerably more in relation to body weight for treadmill walking than for bicycle riding. Thus there may be a range of treadmill settings corresponding to a single ergometer setting. For this reason, and because bicycle ergometer may loose callibration, measurement of oxygen uptake should be required. (Spiro, S.G., Brit. J. Dis. Chest, 71, 145)

A five-minute exercise period may not be sufficient to achieve a "steady state". Most authorities use 6 minutes or more for an exercise period. Additionally, there is no valid medical reason to require a "steady state" exercise test per se. Continuous incremental exercise tests are commonly employed and provide essentially equal blood gas values at comparable levels of oxygen uptake, and have some advantages. (See Spiro, S. G., Brit. J. of Dis. Chest (1977) 71, 145; A. N. Furuike, et. al, Am. Rev. Resp. Dis. (1982) 126: 579; Hansen, J. E., Am Rev. Resp. Dis (1984) 129 Suppl. S25.) Exercise studies should be performed under direct physician supervision.

Under paragraph (k), page 7. Patient does not always have a claim number. Presumably a report would not be rejected for this ommission.

There are several problems with accepting the method of altitude correction for blood gases and the use of the values listed for the P_aO_2 in indicating percentage of impairment.

In several classifications of impairment related to blood gases and altitude, an arterial P_aO_2 of 55 mmhg or below at sea level is considered severe impairment. With increasing altitude the P_aO_2 values

considered to indicate severe impairment fall only about 1.67 mmHg per 1000 feet. Thus at 3,000 feet, a P_aO_2 of 50 mmHg or lower is considered severe while at 6,000 feet 45 mmHg represents the same degree of impairment. (See Miller, W. F. and Paez, P. N. Practice of Medicine, Vol II, chapter 37, Harper & Row, 1979)

The same values are utilized by the Social Security Administration under their proposed new listings of impairments of the respiratory system. Thus for a 0- 3000 feet P_aO_2 of 55 mmHg or below, 3000-6000 feet 50 mmHg and over 6000 feet 45 mmHg. In addition, the Department of Labor uses values of 60, 55 and 50 for the same three altitude ranges.

Thus severe impairment, which is considered totally disabling under the more severe Social Security Administration listings would be rated at only 40% impairment under the proposed rules. Furthermore, under the proposed rules, a 40% impairment would require a Po_2 of 45 mmHg in Beckley or Bluefield, the same value required for <u>total disability</u> at <u>altitudes over 6000 feet</u>! This is, of course, totally unrealistic. A rating of total disability under these proposed rules would require a P_aO_2 of 40 mmHg in Beckley or Bluefield, about the same as at an elevation of about 9,000 feet!

Thus, the proposed Po_2 values are unrealistically low for the percent of impairment, being more stringent than those from the Social Security Disability Program and much more stringent than the Federal Black Lung guidelines. In addition, the proposed correction for altitude would be even more severe for altitudes higher than Charleston.

The third defect in the proposed rules for blood gases is that only the Po_2 values are considered. It is not physiologically feasable to look only at the Po_2 values without the corresponding P_aCO_2 values. For example, under the proposed table for impairment of pulmonary function, a 10% rating would be awarded for a range of impairment between 27 and 39 mmHg (a 12 mmHg range, with P_aCO_2 values of 40 or 30 mmHg respectively. This is not rational.) This is accepted universally within the scientific community and both the Social Security Administration and the Department of Labor utilize both values in their listings. In general, for each mmHg drop in P_aCO_2 , there is a corresponding rise in P_aO_2, at the same degree of impairment. Thus the blood gas values under the Social Security listings are:

P_aCO_2	0- 3000 ft. P_aO_2	3000 - 6000 ft. P_aO_2	Above 6000 feet P_aO_2
40	55	50	45
39	56	51	46
38	57	52	47
37	58	53	48
36	59	54	49
35	60	55	50
34	61	56	51
33	62	57	52
32	63	58	53
31	64	59	54
30	65	60	55

Below 30 mmHg, the same pattern continues so that at P_aCO_2 , 25 mmHg the corresponding rates for PO_2 would be 70, 65, and 60 respectively. The blood gas values for the Federal Black Lung Program would be 5 mmHg higher for the P_aCO_2 in each altitude range.

Utilizing both the P_aO_2 and P_aCO_2 values is in general a shorthand method of appreciating the alvealor-arterial oxygen tension gradient. The latter is the most precise means of assesing blood gas exchange impairment. It also has the advantage of correcting for elevation (i.e. barometric pressure difference. Normally, the $A\text{-}aO_2$ gradient decreases with increasing altitude and the A-a O_2 gradient for severe impairment <u>decreases</u> with increasing elevations.)

The blood gas values for total disability should not exceed P_aCO_2 40 - P_aO_2 55 mmHg or the equilavent P_aCO_2 - P_aO_2 values indicating the same degree of impairment. Lesser percentages of impairment should be changed accordingly. If an altitude correction is to be made, it should not exceed 1.7 mmHg per 1000 feet, or 1 mmHg for each 600 feet elevation above Charleston.

The following table of blood gases is suggested. It is more linear than the Po_2 values in the proposed Table for Impairment of Pulmonary Function, corrects for P_aCO_2 and makes total disability no more stringent than the Social Security Disability Program.

% Impairment	0	10	15	20	25	30	40	50	60	Tota
	P_aO_2 Values at rest or during exercise at 120 watts or less.									
P_aCO_2										
45	75	70	68	66	64	62	58	54	50	50
44	76	71	69	67	65	63	59	55	51	51
43	77	72	70	68	66	64	60	56	52	52
42	78	73	71	69	67	65	61	57	53	53
41	79	74	72	70	68	66	62	58	54	54
40	80	75	73	71	69	67	63	59	55	55
39	81	76	74	72	70	68	64	60	56	56
38	82	77	75	73	71	69	65	61	57	57
37	83	78	76	74	72	70	66	62	58	58
36	84	79	77	75	73	71	67	63	59	59
35	85	80	78	76	74	72	68	64	60	60
34	86	81	79	77	75	73	69	65	61	61
33	87	82	80	78	76	74	70	66	62	62
32	88	83	81	79	77	75	71	67	63	63
31	89	84	82	80	78	76	72	68	64	64
30	90	85	83	81	79	77	73	69	65	65
29	91	86	84	82	80	78	74	70	66	66
28	92	87	85	83	81	79	75	71	67	67
27	93	88	86	84	82	80	76	72	68	68
26	94	89	87	85	83	81	77	73	69	69
25	95	90	88	86	84	82	78	74	70	70

A simpler means of reaching the % of impairment would be to add the values of P_aCO_2 plus P_aO_2 in mmHg; thus

% Impairment	0	10	15	20	25	30	40	50	60	Tota
P_aCO_2										
Plus P_aO_2	120	115	113	111	109	107	103	99	95	95

Correction for altitude could be easily determined by subtracting 1 mmHg for each 600 feet of elevation above Charleston.

Elev.	% 0	10	15	20	25	30	40	56	60	Tota
	(P_aCO_2 plus P_aO_2 mmHg)									
600	120	115	113	111	109	107	103	99	95	95
1200	119	114	112	110	108	106	102	98	94	94
1800	118	113	111	109	107	105	101	97	93	93
2400	117	112	110	108	106	104	100	96	92	92
3000	116	111	109	107	105	103	99	95	91	91

In summary, the major objection to the proposed blood gas standards are:

1. The proposed P_aO_2 values are too stringent.
2. The P_aCO_2 must be included in rating blood gases.
3. The correction of 5 mmHg P_aO_2 per 100 feet is excessive. The correction for elevation should not exceed 1 mmHg per 600 feet of elevation.

United Mine Workers of America

TELEPHONE
AREA CODE (202) 842-7200

Exhibit 2

UNITED MINE WORKERS' BUILDING
900 FIFTEENTH STREET, N. W.
Washington, D. C.
20005

June 11, 1985

Mary Martha Merritt, Commissioner
West Virginia Workers' Compensation Fund
601 Morris Street
Charleston, West Virginia 25301

Re: Proposed Rules, Medical Standards for Occupational Pneumoconiosis

Dear Commissioner Merritt:

These are comments of the International Union of the United Mine Workers of America on the Proposed Rules concerned with medical standards for occupational pneumoconiosis.

First of all, we suggest some changes in certain terms. The use of FEV should not be equated with FVC. FEV could easily become confused with FEV-1 and, in any case, is not standard medical terminology. Similarly, FEV-1/FVC should be used rather than FEV-1/FEV. And, it is the National Institute for Occupational Safety and Health, not "of."

Second, you do not state in these rules how the ventilatory function tests are calculated. For example, is the FEV-1 calculated as the average of the best 3 of five technically satisfactory tests or is some other method used. These rules are also silent about the specific standard formula you propose using for calculating predicted values for ventilatory function.

Third, you exclude from consideration ventilatory function tests that are technically unsatisfactory, a procedure that might result in determination of impairment that is inconsistent with a person's actual health. Recent research (1,2) demonstrates that persons with impaired function perform technically unsatisfactory tests more often than persons with normal function. Therefore, excluding technically unsatisfactory tests may result in denying eligibility for compensation to the very persons who need it. In some fashion, this problem should be incorporated into these rules.

Finally, the proposed rule for adjusting arterial

blood gas studies for differences in altitude seems irrational and unfair. We recognize that one aspect of physiological impairment is measured by the partial pressure of arterial oxygen. This, in turn, is partially dependent on altitude because the partial pressure of atmospheric oxygen decreases with altitude. Other scientific issues concerning this rule were well covered in the comments of Dr. Donald Rasmussen and we defer to his judgment on this issue.

We wish to discuss, however, the policy implications of this rule. To transform this natural phenomenon into the proposed rules (in the form of standardizing all arterial blood gas test results to the altitude in Charleston) results in arbitrary and ultimately unfair decisions. It could result in a person having one level of impairment (and disability) in Bluefield, for example, and another in Charleston. What is such a person to do, move to Charleston in order to "lead a normal life?"

Assuming that adjusting for altitude is appropriate, a more reasonable case could be made for adjusting to the altitude where the person lives. Presumably, this is where the person would spend most of his time. And it is the quality of the person's life where he lives that is at stake rather than the necessity of including this particular feature of lung physiology into these medical standards. A case could also be made for adjusting for the highest place in the state, in consideration of the inevitable imprecision of measures of physiologic function and giving the benefit of doubt to the claimant. Any other standard altitude wold be arbitrary and would result in decisions made without reference to the real life situation of claimants.

We appreciate the opportunity to comment on these rules and may make additional comments later. Please contact us if you have any questions about these comments.

Sincerely,

James L. Weeks

James L. Weeks, Sc.D., C.I.H.
Deputy Director, Occupational Health

cc: Dr. Kerr, Joe Main, Mike Burdiss

References.

1. Eisen, E.A., Wegman, D.H., and Louis, T.A. 1983. "Effects of Selection in a Prospective Study of Forced Expiratory Volume in Vermont Granite Workers,"

Amer.Rev.Resp.Dis. 128:587-591.

2. Eisen, E.A., Robins, J.M., Greaves, I.A., and Wegman, D.H. 1984. "Selection Effects of Repeatability Criteria Applied to Lung Spirometry," Amer.J.Epi. 120:734-742.

" ALTIDUDINAL ADJUSTMENTS "

Exhibit 3

MR. CHAIRMAN, MEMBERS OF THIS COMMITTEE, LADIES AND GENTLEMEN,

MY NAME IS FLOYD C. COX, I AM EMPLOYED AT U.S.STEEL MINING COMPANY AT PINEVILLE, WV. I APPRECIATE THIS OPPORTUNITY TO ADDRESS THIS COMMITTEE AT THIS TIME.

U.M.W.A. MEMBERS HAVE FOUGHT FOR YEARS TO HAVE THE CONGRESS OF THE UNITED STATES AND STATE LEGISLATORS TO RECONIZE BLACK LUNG AS AN OCCUPATIONAL DISEASE AND TO ESTABLISH A COMPENSATION SYSTEM FOR THIS DISEASE.

NOW, THE COAL OPERATORS THROUGH THE W.V. COAL ASSOCIATION ARE TRYING TO ELIMIATE THESE BENEFITS WHICH COAL MINERS RECIEVE AS FAIR AND JUST COMPENSATION FOR SACRIFICING THEIR HEALTH OVER A LIFE TIME IN THE COAL MINES.

THE NEW REGULATIONS OF THE WORKMAN'S COMPENSATION ARE UNFAIR TO COAL MINERS BECAUSE, ON PAGE 7, PARAGRAPH II, FOR THE FIRST TIME IN W.V. HISTORY THE WORKMEN'S COMPENSATION COMMISSION IS MAKING WHAT IS CALLED "ALTIDUDINAL ADJUSTMENTS" IN BLOOD GAS STUDIES IN OCCUPATIONAL PNEUMOCONIOSIS CLAIMS.

FOR EACH 1000 FEET OF ELEVATION OF THE TESTING LOCATION OVER CHARLESTON THE W/C COMMISSION WANTS TO TAKE 5 POINTS OF DISABILITY OFF THE TEST. FOR EXAMPLE, BECKLEY IS 2000 FEET HIGHER THAN CHARLESTON AND ALL BLOOD GAS STUDIES WILL HAVE 10 POINTS TAKEN AWAY FROM ALL BECKLEY TESTS. DR. RASMUSSEN, THE TRUE AUTHORITY ON BLACK LUNG IN W.V, SAYS THERE MAY BE AN "ALTIDUDINAL ADJUSTMENT", BUT HE SAYS IT SHOULD BE 1 POINT FOR EACH 1000 FT. OF ELEVATION, NOT 5 POINTS FOR EACH 1000 FT. OF ELEVATION OVER CHARLESTON.

THESE NEW REGULATIONS WILL NULLIFY TESTS DONE IN BECKLEY AND BLUEFIELD, THE TWO REAL CENTERS OF COAL MINERS BLACK LUNG TESTING. THE MOST IMPORTANT THING AND THE MOST DANGEROUS IS THAT THESE REGULATIONS ARE DOING AWAY WITH THE APPALACHIAN REGIONAL HOSPITAL PULMONARY LABORATORY IN BECKLEY (DR. RASMUSSEN) AND IT'S EFFECTIVENESS. THIS IS A TRICK BY THE W.V. COAL ASSOCIATION, AND IT'S LAWYERS IN CHARLESTON.

THE FEDERAL GOVERNMENT DOES NOT MAKE THE ALTIDUDINAL ADJUSTMENT IN IT'S BLACK LUNG PROGRAM.

CLAUDE A. FRAZIER, M.D.
PRACTICE LIMITED TO ALLERGY
DOCTORS PARK - BLDG. 4
ASHEVILLE, N. C. 28801

DIPLOMATE AMERICAN
BOARD OF ALLERGY
AND IMMUNOLOGY

June 3, 1985

Mr. Floyd Cox
Drawer 1560
Pineville, WV 24874

Dear Mr. Cox:

The following information is from my book "Occupational Asthma", (Van Nostrand Reinhold, 1980) pages 158, 352 and 353. I hope that it helps you.

"Coal miners' pneumoconiosis has been called 'the greatest industrial killer of all time.' In the one year 1973 a total of 367 miners died of the disease in Great Britain, and in 1975 the British government provided $100 million to help compensate miners already suffering from pneumoconiosis."

"The dust encountered in coal mines is variable, it composition depends on the type of mine and the position of the mine, and it always is a complex mixture. At the coal face, dust will consist mainly of carbon, but it may contain up to 2% free silica in addition to silicates, carbonates, and other inorganic material. Lung disease may also be responsbile, and infection may play a part. The pnemoconiosis of coal miners may therefore take different forms. Simple pneumoconiosis is not a seriously disabling disease, but it may develope into complicated pneumoconiosis or progressive massive fibrosis, a much more serious condition."

"Occasionally coal miners and other persons exposed to carbon dust develop classical bronchial asthma. Coal is so regularly regarded as a mineral that one often loses sight ot its vegetable origion. Since pulmonary allergy to plants is one of the most common sources of sensitization, the possibility that allergenic materials may survive in fossilized plants is not too farfetched. The severity of asthma in certain coal and carbon workers is impressive."

"In mining coal a great amount of wood is used, and many of the pit props eventually decay, mainly because of fungal action. It is likely that sensitization to the fungi is a factor in coal miners' asthma. Other possibilities include sensitization to mitroglycerine and ammonium nitrate used for blasting petrous dikes. "

"The miners' asthma discussed her should be carefully distinguished from the severe pulmonary disability that develops as a late sequel to progressive anthracosis (black lung). This is a separate pneumoconiotic process not related ot sensitization, although sensitization may acutally be superimposed. The true asthma manifests itself quite

early in the career of the coal miner -- long before the pnemoconiosis is sufficiently advanced to cause disability. It is sometimes relieved dramatically when the coal miner switches to some other type of mining (e.g., metal mining), which may actually be more hazardous from the point of pneumoconiosis but is not associated with allergenic factors."

"Some idiividuals who are exposed to carbon particles and the fumes liberated by carbon arc lights develop acute and severe pulmonary symptoms. Such persons may be sensitized, but the possibility of direct lung injury by NO_2 (videsupra) or by chemicals impregnated in the carbon electrodes needs to be kept in mind."

I hope this is what you needed, if you need anything further, just let me know.

Sincerely,

Claude A. Frazier, M.D.

CAF/dlg

Now $\frac{PO^2 \quad 69}{PCO^2 \quad 30-40} = 15\%$

AFTER $PO^2\ 69 + 10 = 79 = 0\%$
$PCO^2\ 30-40$

NOW $PO^2\ 55 = 40\%$ TO TOTAL

AFTER $PO\ 55 + 10 = 65 = 20\%$

Exhibit 4

June 12, 1985

WORKERS' COMPENSATION FUND
601 Morris Street
Charleston, West Virginia 25301

My name is Bill Bailey, President of the West Virginia Black Lung Association. I speak for thousands of disabled Black Lung victims. I cannot speak in terms that the medical doctors speak from, but when they read over these proposals and they are experts in their field on Black Lung, they have objected to Paragraph II on Page 7.

Whoever started this provocation to make it harder for a man or woman to get anything from their Workers' Compensation claim when they are examined in this manner under Paragraph II on Page 7. The Compensation Board Examiners have long been conservative when it came to making an evaluation on a Black Lung victim and now they—or I should say the power pressure and influence of coal conglomerates, have thought up another scheme by way of proposed regulations to make it even harder to collect for a permanent injury.

If any of you think that the Federal regulations are stricter, then you had better read this proposed change. These people have not told you, but these proposed regulations are already being used since May 3, 1985.

You working miners should speak out now. Ask your COMPAC to fight this.

Sincerely,

Bill Bailey, President
West Virginia Black Lung Association
Box 1065
Beckley, West Virginia 25801

Bill Bailey

Exhibit 5

COMMENTS ON PROPOSED RULES OF THE WEST VIRGINIA WORKERS' COMPENSATION FUND

Legislative Rule, 23-1

Series I, Section 20.8

Standards for Medical Examination

Submitted by:

Joseph S. Beeson

Robinson & McElwee
P. O. Box 1791
Charleston, West Virginia 25326

On behalf of:

Cedar Coal Co.
Central Appalachian Coal Company
Southern Appalachian Coal Company
Southern Ohio Coal Company
Windsor Power House Coal Company

BEFORE THE WORKERS' COMPENSATION COMMISSIONER

Charleston, West Virginia

June 14, 1985

Over the past several years, by judicial fiat, the nature and degree of medical evidence necessary in order for a claimant to prevail in an occupational pneumoconiosis case has been drastically minimized. In this respect, occupational pneumoconiosis cases have seen the same evolution - perhaps revolution is a better word - as workers' compensation cases generally. The liberality rule, never intended by the Legislature to apply to evidentiary matters, now seems, in many cases, to be utilized as a substitute for evidence with extremely inequitable results.

I am and have been for ten years a practitioner in this specialty field of law. While I do not in any way advocate a system which denies benefits to deserving claimants, I believe it is obvious to all but the most myopic that the system has been perverted to permit the payment of benefits in many cases, regardless of the evidence, to persons who are in no way entitled to recover them. This, of course, adds to West Virginia's negative business image and places an unreasonable and unjustifiable burden on the State's employers.

Neither this Commissioner nor her immediate predecessor have been responsible for the development of the problem. It is no secret where that responsibility lies. The Commissioner should be commended for her efforts to develop a set of

regulations which help to provide a uniform procedure for the evaluation of disability due to occupational pneumoconiosis. Although I believe that the weight of medical opinion would support more conservative standards, the proposed standards are apparently intended to satisfy the mandate of the Supreme Court of Appeals.

I would note that Dr. Donald E. Rasmussen, a prominent claimant's pulmonary physician from Beckley, has filed comments which are generally supportive of the proposed rules. The only significant areas of dispute raised by Dr. Rasmussen relate to the use of the PCO_2 in the evaluation of impairment in blood gas testing, and the altitude adjustment for blood gas tests performed in different laboratories. And, on the latter point, even Dr. Rasmussen does not contest the need for an altitude correction of some type. I believe that the correction utilized in the proposed rule is scientifically supportable and fair to all.

It is not my purpose today to go into minute detail on the various provisions of the proposed rule. Additional comments will be filed later which will address individual issues. I would like today to address two of the most significant provisions of the proposed rules -- (1) the right of the Occupational Pneumoconiosis Board to require additional pulmonary function testing where valid submitted test results appear to differ; and (2) the proposed standards for exercise blood gas testing:

1. It is a generally accepted medical fact that occupational pneumoconiosis is an irreversible disease process.

This means that impairment due to occupational pneumoconiosis will not improve. Accordingly, pulmonary physicians virtually unanimously agree that where valid tests are performed in reasonable proximity to each other, the test showing the least impairment is the test indicative of impairment due to occupational pneumoconiosis. Dr. Rasmussen, for instance, has confirmed that view in testimony in various occupational pneumoconiosis claims.

Nevertheless, the Supreme Court of Appeals has decreed that, medical fact notwithstanding, utilization of the best test results, where results conflict, is unacceptable. In effect, the Court has mandated that the members of the Occupational Pneumoconiosis Board abandon their medical judgment in favor of an artificial standard imposed by the liberality rule.

The proposed rule would permit the Occupational Pneumoconiosis Board to obtain an additional test where valid, contemporary test results differ. Although more liberal than good medical judgment would require, this rule would avoid the wholly improper alternative of utilizing the test result showing greater impairment to the exclusion of the result showing lesser impairment. Presumably, the additional test will confirm the validity of one or the other of the prior tests. Note that Dr. Rasmussen does not, in any way, take issue with this approach in his comments.

When this approach is coupled with the standards relating to how testing must be performed, what equipment must be used, etc. -- the "technical" rules -- the probability of the

Occupational Pneumoconiosis Board reaching a medically defensible result is greatly enhanced. The technical rules further help to ensure that testing will be performed only in well-equipped laboratories, staffed with competent technicians capable of producing valid reproducible results.

I would suggest that the right of the Occupational Pneumoconiosis Board to obtain additional testing be extended to include additional blood gas testing as well as additional pulmonary function testing. There seems to be no good reason to limit the Occupational Pneumoconiosis Board's authority in this area.

2. The proposed rules for exercise blood gas testing strike a happy medium between those who criticize present Occupational Pneumoconiosis Board exercise testing as insufficient and those who criticize reports from certain laboratories on the ground that exercise levels are unreasonably high. The proposed exercise levels are consistent with studies demonstrating exertional levels in coal mining employment and should be adequate to detect impairment relating to occupational pneumoconiosis while excluding that due to unrelated factors. Additionally, they will permit much needed standardization of testing from one laboratory to another.

In conclusion, I would like to commend the Commissioner and all those who had a hand in developing the proposed rules for the effort that has gone into making them balanced, fair and reasonable. I believe that the application of these rules will

reduce the amount and cost of litigation of occupational pneumoconiosis claims to the benefit of claimants and employers alike and result in awards based on evidence rather than speculation, thus reducing the number and expense of appeals.

Exhibit 6

COMMENTS ON PROPOSED RULES OF THE WORKERS' COMPENSATION FUND

Legislative Rule 23-1

Series I, Section 20.8

N. LeRoy Lapp, M.D., F.A.C.P., F.C.C.P.
Professor of Medicine, Pulmonary Disease Section
West Virginia University Medical Center
Morgantown, WV 26506

The standards for medical examination are an attempt to ensure uniform procedures in administering and interpreting ventilatory function tests and arterial blood gas studies. This is a laudible and most welcome development that has been endorsed by a number of agencies of the federal government and professional organizations. Among these are the National Heart, Lung and Blood Institute (B. G. Ferris, Epidemeology Standardization Project, American Review of Respiratory Disease, 1978; 118 (Part 2):55-88), The National Institute for Occupational Safety and Health (Federal Register, 1980; 45, (42):13695-13696), The American Thoracic Society (R. M. Gardner et al, ATS Statement - Snowbird Workshop on Standardization of Spirometry, American Review Respiratory Disease, 1979; 119:831-838), and The American College of Chest Physicians (S. Permutt et al, Office Spirometry in Clinical Practice: Statement of the American College of Chest Physicians Committe on Clinic and Office Pulmonary Function Testing, Chest, 1978; 74:298).

The standards for ventilatory function testing follow very closely those of the above agencies and professional organizations and I have only a few comments here.

1. The government and professional organizations recommend that the variation between the two largest (best) FEV1's should not exceed 5% or 100 ml whichever is greater. The proprosed standards allow 7% or 100 ml whichever is greater. This represents a significantly more lenient criterion than that recommended elsewhere. (Ferris, American Review Respiratory Disease, 1978; 118 (Part 2):55-58, and Zamel, Chest, 1983; 83:547-550).

2. On page 3, II, the proprosed standards allow the subject to sit or stand to perform the FVC maneuver, but on page 4, III, mandate that the MVV test be performed in the sitting position. I presume that the intent was to protect against an injury should the subject become lightheaded or feel faint during the test, however, there is no compelling reason to mandate that the test be done in the sitting position.

My previous comments regarding ventilatory testing on the disirability of standardizing technique and interpretation also apply to arterial blood gas studies. Standardizing the technique for drawing arterial blood, performing exercise, and accounting for differences in the altitude of the testing facilities so as to ensure comparability of data apply as much if not more than for ventilatory testing. The remainder of my comments will be specific to the arterial blood gas testing and exercise.

3. Page 6 (E). Mandates that a resting sample of arterial blood be drawn by direct puncture with a 22-gauge needle and heparinized syringe. I see no need to mandate the size of the needle, and no need to exclude the possibility of using an in-dwelling catheter, although I agree there is no necessity of placing a catheter if exercise is not going to be performed. I do believe that needles smaller than 22-gauge can be used in skilled hands to obtain valid arterial samples by direct puncture.

4. Page 6 (G). If an arterial blood sample is analyzed immediately, there is no need for it to be iced. The word and should be or. Simple icing of the sample is not sufficient to stop metabolic activity of the blood cells. The sample must be immersed in an ice containing water not simply surrounded by ice, to rapidly stop cell metabolism. (Siggaard-Anderson, Scandinavian Journal of Clinical Investigation, 1961; 13:196-204. Fletcher and Barber, Journal of Applied Physiology, 1966; 21:463-468.)

5. Page 6 (I). Appears to mandate a bicycle ergometer for the exercise and the treadmill only as an alternative if the subject, for physical reasons, is unable to ride the bicycle. This would work a serious hardship and require many testing facilities who now use treadmills to invest in new equipment. There is a sufficiently large body of data in the literature to indicate that at comparable external workloads, the oxygen uptake and metabolic work performed are for practical purposes the same whether performed on a treadmill or a bicycle ergometer. I strongly recommend the proposed regulation be changed to accept either bicycle ergometer or treadmill as acceptable. In this regard, 75 watts or 450 Kpm at 50 to 60 revolutions per minutes is approximately the same as 2.0 mph 10% grade on a treadmill for a 70 Kg man. While it is desirable to exercise a subject at 120 watts on the bicycle or at the comparable value of 2.5 mph 15% grade on the treadmill, it must be recognized that for a 70 Kg man of age 65, this would result in his exercising to approximately 83% of predicted maximal oxygen consumption for his age. Therefore, both workloads should be required for subjects under 65 years of age and the upper load should not be required for those over age 65.

6. Page 7 (II). I support the idea of an altitude correction for the arterial blood gas value before applying the value to the table to obtain a percent impairment. There are numerous studies in the literature discussing the theoretical basis for a significant effect of altitude on

measured arterial oxygen tensions. Wasserman (Clinical Notes on Respiratory Diseases, Fall 1973; 12:3-10) reports an average of 4 to 5 mmHg lower Pa02 for each 1,000 feet of elevation. Reeves et al (Journal of Applied Physiology, 1969; 27:658-661) found an average drop of arterial oxygen tension from 87 $\pm$ 5 mmHg at 1,000 feet of elevation in Lexington, KY to 35 $\pm$ 5 mmHg after three hours in an altitude chamber with a simulated altitude of 15,000 feet, an average of 3.7 mmHg decrease in Pa02 per each 1,000 feet of elevation. Lenfant and Sullivan (New England Journal of Medicine, 1971; 284:1298-1309) demonstrate that most of the adaptive mechanisms found in long term residence or sojourners at altitude are of little consequence or difficult to measure up to altitudes of 1,000 meters (3,000 feet). Thus, the effects of lowered atmospheric oxygen are almost directly reflected in the arterial blood gas oxygen pressure uncomplicated by compensatory mechanisms. Kanner and Morris (A Manual of Uniform Laboratory Procedures for the Intermountain Area, 1975, "Data from Dr. Petty comparing arterial blood gas values for Denver, CO and at sea level, demonstrating a range of Pa02 of 2.9 to 4.8 mmHg lower for each 1,000 feet of elevation difference.") Our own experience of reviewing measurements of arterial blood gases taken on the same subjects at different times in different laboratories situated at altitudes of approximately 2,400 feet and approximately 600 feet above sea level often demonstrate oxygen pressures that are 7 to 10 mm lower at the higher altitude an average value of 4 to 6 mmHg per each 1,000 feet of elevation.

7. Page 7, the table for impairment of pulmonary function. Rather than a single value for P02 both resting and exercise to qualify for the various degrees of impairment, it would seem more equitable to have one that includes the PCO2 as well. This is what the Social Security Administration did in their standards under 3.01 Category of Impairments, Respiratory, Table III. Since the Social Security System is a total disability system, it would be sensible to set out their values in Table III as equal to total impairment in the proposed standards and to set intervening values between 0 and total impairment on a continuum but adjusted for the PCO2 values. This would be more equitable that a single value of PO2 since an individual who was hyperventilating and barely kept his PO2 normal because of disease would not be penalized as he would be if a single value were used without regard to the PCO2. Such a table would look like the following:

	% IMPAIRMENT								
	0.	10	15	20	25	30	40	50	60	Total
PaCO2	PaO2 VALUES EQUAL TO OR LESS THAN									
30 or below	85	81	78	75	73	70	68	67	66	65
31	84	80	77	74	72	69	67	66	65	64
32	83	79	76	73	71	68	66	65	64	63
33	82	78	75	72	70	67	65	64	63	62
34	81	77	74	71	69	66	64	63	62	61
35	80	76	73	70	68	65	63	62	61	60
36	79	75	72	69	67	64	62	61	60	59
37	78	74	71	68	66	63	61	60	59	58
38	77	73	70	67	65	62	60	59	58	57
39	76	72	69	66	64	61	59	58	57	56
40 or above	75	71	68	65	63	60	58	57	56	55

I heartily concur that exercise PO2 values that rise above the resting PO2 values should indicate a lesser degree of impairment of arterial blood gas. Values that are less than the resting values during exercise would indicate a greater degree of impairment of arterial blood gas transfer.

Finally, I also concur with the position that any medically acceptable tests or procedures reported by a physician would be given appropriate consideration in the decision of the Board. On the other hand, in the interest of uniformity and equity, I feel it is important that the Board establish levels of exercise that are standardized and can be done at different testing facilities but interpreted with a commonly agreed upon interpretation. Five minutes of exercise whether treadmill or bicycle should suffice to reach a steady state for the purposes of this examination. Much more important than whether the exercises conducted for five or six minutes is the fact that the arterial blood gases must be drawn during the exercise. The practice of performing arterial punctures after exercise is to be condemned as it may provide misleading information in some patients (Ries et al, Chest, 1983; 83:454-456).

June 21, 1985
Statement by Thomas J. Neilson, M.D.,
Assistant Medical Director,
Consolidation Coal Company on
Proposed Rules of the
Workers' Compensation Commissioner
in West Virginia
Related to Pulmonary Function Tests
for Occupational Pneumoconiosis Claims

Exhibit 7

The standards for the medical examination outlined in Legislative Rule 23-1, Series 1, Section 20.8 are a definite improvement over the present situation. These guidelines setting standards for pulmonary function testing will provide the Commissioner with meaningful data relating, (1) the degree of impairment, and (2) the relationship of the impairment to occupational exposure, specifically coal workers' pneumoconiosis. It is important to restate that the chest x-ray remains the cornerstone of determination of coal workers' pneumoconiosis. It provides a semi-quantitative estimate of the dust burden the miner was exposed to during his career. The pulmonary function studies are useful to assess the degree of impairment; and if a restrictive pattern is seen, they confirm the x-ray diagnosis of coal workers' pneumoconiosis.

One test which might be added to the proposed standards is the use of bronchodilators in assessment of the patient. These bronchodilators would detect bronchospasm and indicate if there is a treatable impairment which is not due to coal workers' pneumoconiosis.

While testing after bronchodilators need not be mandatory, the examining physician should have the option of including such information in his report. This option could be provided as it is stated in the change

announced in the Department of Labor Regulations as outlined in the Federal Register, Section 718.103. It is stated:

> There is no reason . . . to exclude from consideration the results of testing done after the administration of a bronchodilator. The commenter who stated that in the event a bronchodilator is used, tests should be conducted before and after its use, is correct. The regulation has been changed to incorporate that requirement. Pulmonary function testing must always initially be performed without the use of a bronchodilator. If, for purposes of diagnosis, the physician feels that repeat spirometry after the adminstration of a bronchodilator is indicated, bronchodilation could then be performed.

The State Workers' Compensation Fund should parallel Federal regulations and encourage, at the discretion of the examining physician, the use of bronchodilators to better delineate the etiology of any obstructive pulmonary impairments, especially when ventilatory studies are abnormal. This would help separate asthmatic, chronic bronchitic, and emphysematous patients from those whose respiratory impairment is mainly due to coal workers' pneumoconiosis. This is of value since most of the impairment caused by coal workers' pneumoconiosis is due to restrictive rather than obstructive airway disease.

# # #

INTERNAL MEDICINE ASSOCIATES, INC.
1063 MAPLE DRIVE, SUITE 2-A
MORGANTOWN, WV 26505
Telephone (304) 598-2801

EPH J. RENN III, M.D., F.C.C.P.
nonary Diseases

N P. GRIFFITHS, M.D.
rnal Medicine

'AN SWEARINGEN, M.D.
troenterology

Exhibit 8

June 13, 1985

Ms. Mary Martha Merritt
Workers' Compensation Fund
601 Morris Street
Charleston, WV 25301

RE: Proposed Rules of the
Workers' Compensation
Commissioner

Dear Ms. Merritt:

You are to be commended for the Proposed Rules. An update certainly has been in order. I agree with most of the rules but I have a few specific concerns. I plan to attend the June 21, 1985 public hearing in Morgantown to offer oral comment and am submitting, by this letter, my specific concerns as follows.

1. In paragraph (II) (G) regarding FEV1 measurement, the proposed is more lenient than that recommended by the American College of Chest Physicians in CHEST 83: 547, March 1983. The statement by the College is to the effect, "The two best of three acceptable spirograms should not vary by more than 5% of the largest value or by more than 100 ml., whichever is greater." I feel we should adhere to the more stringent quality control parameter of 5%.

2. In the section labeled arterial blood gas studies (I), paragraph (I), the bicycle ergometer is being mandated in preference to the treadmill. The literature is replete with the argument of bicycle ergometer versus treadmill stress testing. An excellent summary is found in AM. REV. RESPIR. DIS. 1984; 129: Suppl. S25 - S27. The most important difference is the variable speed and grade treadmill allows the grade to normalize differences in highest oxygen uptake between persons of different size and it uses an exercise which is familiar to all, walking. The bicycle ergometer requires exact cycling frequencies to quantitate work and it is difficult for the patient to maintain the same level of cycling frequency, a problem not existent with the treadmill.

There are lower oxygen uptakes reached by most subjects on the cycle and some have difficulty with seat discomfort as well as unfamiliarity with the particular exercise technique. Either the treadmill or the bicycle ergometer should be allowed and, for those with lower extremity problems, the hand ergometer.

3. Under the section, Arterial Blood Gas Studies, (II), it is commendable we are recognizing the affect of altitude but I feel we should also recognize the affect of age. In Respiration 25: 3-13, 1968, Sorbini et al developed the equation in which the alveolar oxygen concentration is determined from the alveolar air equation from which the age multiplied by the factor 0.43 is then subtracted. This then represents the expected arterial oxygen concentration corrected for ambient barometric pressure, water vapor pressure and age. The standard deviation of an estimate of arterial oxygen concentration from this equation was ± 4.10 mmHg.

4. In the Table For Impairment Of Pulmonary Function, the FEV1/FVC ratio should be calculated according to the age regression formula published in the Am. Rev. Respir. Dis. 108: 1000, 1973. The age regression formula is more accurate and allows for not only age differentiation but also differentiates between the sexes. The formula for men is age multiplied by 0.2253 and subtracted from 84.64 with the standard error of the estimate being ± 7.83. The formula for women is age multiplied by 0.1789 and subtracted from 84.23 with the standard error of the estimate being ± 6.84.

5. The second paragraph under the section, Table For Impairment Of Pulmonary Function states, essentially, exercise pO2 values greater or less than resting will indicate, respectively, a lesser or greater degree of impairment of pulmonary function. The exercise pO2 may be less than resting in the absence of any pulmonary dysfunction. Any decrease in cardiac output, for whatever reason, will diminish the arterial oxygen tension. This may be found in the fourth edition of Lung Function by J. E. Cotes published in 1979 and found in various places throughout the book but quite extensively throughout chapter sixteen and specifically on page 462. It would be more accurate to state, " . . . . if they are less than the resting values will indicate a greater degree of impairment of either the cardiovascular or respiratory systems."

Thank you for your consideration of these several concerns. You may contact me regarding this if you so desire.

Sincerely yours,

Joseph J. Renn, III, M. D., F.C.C.P.

JJR:jnq

CURRICULUM VITAE

JOSEPH J. RENN, III, M.D., F.C.C.P.

Born:	Charles Town, West Virginia February 7, 1938 Lived Martinsburg, West Virginia
Social Security #:	232-54-3958
Married:	September 8, 1963 Wife - Antoinette
Children:	Jodie Lynn (born August 3, 1964) Jennifer Ann (born August 19, 1966) Joseph John IV (born October 24, 1968)
Education:	Martinsburg High School Martinsburg, WV Graduated June, 1956
	Shepherd College Shepherdstown, West Virginia Graduated cum laude June 1960, B.S..
	West Virginia University Medical Center Morgantown, West Virginia Graduated June, 1964, M.D.
Internship:	University of Virginia Charlottesville, Virginia July 1964 to June 1965
Graduate Work:	University of North Carolina Chapel Hill, North Carolina Medicine Junior Resident June 1965 to June 1966
	University of North Carolina Chapel Hill, North Carolina Fellowship Metabolism July 1966 to December 1966
	United States Navy School of Aerospace Medicine Pensacola, Florida Flight Surgeon's School January 1967 to June 1967
	West Virginia University Medical Center Morgantown, West Virginia Medical Senior Resident and Chief Resident July 1969 to June 1971

JOSEPH J. RENN, III, M.D., F.C.C.P.

West Virginia University Medical Center
Morgantown, West Virginia
Fellowship, Pulmonary Diseases
July 1970 to June 1972

Meetings and Continuing Education Courses Attended:

American College of Chest Physicians
Management of Acute Cardiorespiratory Failure
February 26, 1973 to March 2, 1973

Hahnemann Medical College and Hospital
School of Continuing Education
Nephrology for the Practicing Internist
March 19, 1973 to March 21, 1973

University of Maryland School of Continuing Medical Education
Internal Medicine - Advances and Review
April 15, 1974 to April 17, 1974

American College of Chest Physicians
Flexible Fiberoptic Bronchoscopy
September 19, 1974 through September 20, 1974

John Hopkins Hospital
Baltimore, Maryland
Bronchology
November 1975

Cook County Graduate School of Medicine
Pulmonary Diseases Specialty Review Course
September 1976

Maryland Hospital Education Institute
Second Annual Maryland Medical Staff Conference
October 6, 1976 to October 9, 1976

Hahnemann Medical College and Hospital
Occupational Respiratory Diseases
February 1977

Harvard Medical School
Interdisciplinary Approach to Pulmonary Disease
October 1978

National Board Review Course in Pulmonary Medicine
Chicago, Illinois
March 30, 1980 through April 4, 1980

JOSEPH J. RENN, III, M. D., F.C.C.P.

American College of Chest Physicians Post-graduate Course
Occupational Lung Disease
Boston, MA
October 26, 1980

American College of Chest Physicians Annual Meeting
Boston, MA
October 26, 1980 through October 30, 1980

Symposium on Radiology of the Pneumoconioses
Philadelphia, Pennsylvania
February 13, 1981 through February 16, 1981

Eighth Annual Seminar in Pulmonary Physiology and Medicine
Pittsburgh, Pennsylvania
September 15 and September 16, 1981

Twenty-second Workshop in Electrocardiography
The Rogers Heart Foundation
Clearwater Beach, Florida
October 15, 1981 through October 19, 1981

American College of Chest Physicians Post-graduate Course
Complications of Respiratory Therapy
San Francisco, California
October 25, 1981

American College of Chest Physicians Annual Meeting
San Francisco, California
October 26, 1981 through October 29, 1981

Beckman Metabolic Measurement Cart Training Course
Los Angeles, California
March 1, 1982 through March 5, 1982

Pulmonary Rehabilitation
Dayton, Ohio
March 22, 1982 through March 24, 1982

American Association For Respiratory Therapy
Canadian Society of Respiratory Therapists
Niagara Falls, Canada
July 19-22, 1983

West Virginia State Medical Association
White Sulfar Springs, WV
August 25 - 27, 1983

American College of Chest Physicians 49th Annual Meeting
Chicago, Illinios
October 23 - 27 1983

Symposium on Radiology of the Chest
Miami, Florida
November 27 through December 1, 1983

The 26th Annual Meeting of the Michigan Society for Respiratory Therapy
Flint, Michigan
May 20 - 24, 1984

Clinical Update in Bronchology
John Hopkins Hospital
Baltimore, MD
August, 1984

Harvard Medical School
Pulmonary Medicine
Boston, MA
April 29 - May 2, 1985

Academic:

West Virginia University Medical Center
Morgantown, WV
Assistant Professor of Medicine
July 1971 to June 1972

West Virginia University Medical Center
Morgantown, WV
Clinical Assistant Professor of Medicine
July 1972 to June 1978

West Virginia University Medical Center
Morgantown, WV
Clinical Associate Professor of Medicine
July 1978 to June 1980

West Virginia University Medical Center
Morgantown, WV
Associate Professor of Medicine
July 1980 to April 1982

Professional Boards:

Certified, American Board of Internal Medicine
June 21, 1972

JOSEPH J. RENN, III, M. D., F.C.C.P.

Diplomate in the Subspecialty of Pulmonary Disease
June 17, 1980

Certified "B" reader, April 17, 1981

Professional Appointments:

Chief of Medicine
Monongalia General Hospital
October 1971 to December 1975
January 1977 through December 1978

Chief of Staff
Monongalia General Hospital
December 1975 to January 1977

Monongalia General Hospital Company Member and Physician Advisor
1976 to December 1981

Chief of Pulmonary Function Laboratory and Medical Director of Respiratory Therapy
Monongalia General Hospital
1975 - present

Pulmonary Disease Consultant
Monongalia County Chest Diagnostic Clinic
1972 - present

Military:

West Virginia Air National Guard
Martinsburg, West Virginia
1956 to 1969
A/2C

United States Navy School of Aerospace Medicine
Pensacola, Florida
January 1967 to June 1969
Lieutenant

United States Naval Air Station
Willow Grove
Horsham, Pennsylvania
July 1967 to June 1969
Lieutenant Commander

Medical Societies:

American Medical Association
West Virginia State Medical Association
Monongalia County Medical Society
Member American College of Physicians
American Thoracic Society
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JOSEPH J. RENN, III, M. D., F.C.C.P.

	President, West Virginia University Medical School Alumni Association 1979 - 1980
Academic Honors:	American Diabetes Association National Essay Winner 1964
	Alpha Omega Alpha March 1980
Committee Appointments:	American College of Chest Physicians Respiratory Care Committee American College of Chest Physicians Subcommittee To Study Pulmonary DRG's
Journal Publications:	Postpericardiotomy Syndrome. W. Va. Med. J. 66: 48 - 49, 1970
	Electrocardiographic Changes in Nonpenetrating Trauma to the Chest. Acta Cardiologica 25: 418 - 423, 1970
Books:	Medical Examination Review Book. Pulmonary Diseases. Volume 24, 3rd Edition ECFMG Review, Part I, 5th Edition, Pulmonary Diseas Section
Scientific Presentation of Original Research:	Erythrocyte Transport Defect in Experimental Magnesium Deficiency American Federation for Clinical Research April 30, 1967

REVISED May 1985

Exhibit 9

BEFORE THE WORKERS' COMPENSATION COMMISSIONER
MORGANTOWN, WEST VIRGINIA
JUNE 21, 1985

My name is James Rodney Christie, and I am Vice President of Grafton Coal Company in Bridgeport, West Virginia. In addition to Grafton Coal Company, I am also here today on behalf of Bruce Mining Company, Barbour Coal Company and Tygart Coal Company.

I have been associated with the everyday administration of coal operations in West Virginia for over ten years. As such, I have seen first-hand the effect that employment-related costs have had on the ability of employers to operate successfully in West Virginia. While I do not in any way advocate a system which denies benefits to deserving claimants, I believe that our compensation system has been distorted to permit the payment of benefits in many cases, regardless of the evidence, to persons who are in no way entitled to recover them. This places an unreasonable and unjustifiable burden on the State's employers, and, consequently, adds to West Virginia's negative business image as well as its economic well being.

I believe the Commissioner should be commended for her efforts to develop a set of regulations which help to provide a uniform procedure for the evaluation of disability due to occupational pneumonoconosis. Although I earnestly believe that the weight of medical opinion would support more conservative standards, the proposed standards are apparently intended to satisfy the mandate of the West Virginia Supreme Court of Appeals.

It is not my purpose today to go into minute detail on the various provisions of the proposed standards. Additional comments are being filed today on behalf of the four companies I am representing. These written comments will specifically address individual issues in the proposed rules. I would simply like to note that I believe the proposed regulations are for the most part excellent in their coverage and should be adopted. This approach will help to ensure a uniform system with predictable results and comparable testing. Certainly both claimants and employers are entitled to fair and even-handed treatment. I believe that the application of these rules will do much to promote such treatment, and will probably reduce the amount and cost of litigation of occupational pneumonoconosis claims to all concerned. On behalf of Grafton Coal Company, Bruce Mining Company, Barbour Coal Company and Tygart Coal Company, I would like to thank the Commissioner for giving us the opportunity to comment on these proposed standards, and I would again commend the Commissioner, and all those who had a hand in developing the proposed rules, for the effort that has gone into making them balanced, fair and reasonable. Thank you.

Comments on Emergency Regulations
Workers' Compensation Fund
Leg. Rule, 23-1
Series I, Sec. 20.8

Exhibit 10

Presented by:
John L. McClaugherty
Jackson, Kelly, Holt & O'Farrell

INTRODUCTION

My name is John L. McClaugherty. I am a partner in the law firm of Jackson, Kelly, Holt & O'Farrell with offices in Charleston and Morgantown, West Virginia, and in Lexington, Louisville, and Owensboro, Kentucky. Our law firm represents numerous employers in workers' compensation cases in West Virginia. I will address and comment separately on four aspects of the proposed regulations: the technical requirements for the performance of ventilatory and blood gas tests; the adjustment of blood gas test results for altitude; the proposed table for the evaluation of impairment due to respiratory disease; and the proposal to permit additional testing where test results are in conflict.

I. TECHNICAL AND QUALITY STANDARDS FOR VENTILATORY AND BLOOD GAS TESTS

The quality standards for the performance of ventilatory function and blood gas testing are too detailed and technical to permit extensive comment by a layman. It does, however, appear that these standards are consistent with standards generally being used clinically and with the standards

specified in other disability programs. I do not understand any of the expert witnesses who have presented testimony thus far have found any major deficiencies in these proposals, and the standards would not seem to require any major changes in the testing procedures already being utilized in reputable pulmonary function laboratories in the State.

I would note two concerns, however. The first relates to the reproducibility of ventilatory studies. These proposed regulations require that the two best efforts on the FEV_1 maneuver vary by not more than 7%. At least one expert witness has suggested that the permitted variation should not be more than 5%. Inasmuch as one of the primary purposes of these regulations is to deal with medical evidence which conflicts, I would urge the Commissioner to adopt the most stringent standard for reproducibility. I would respectfully submit that many of the discrepancies in test results, at least as they arise in the context of ventilatory studies, would be eliminated if the quality of those test results was generally improved.

The second concern is that I would suggest that the regulations include a requirement that any laboratory reporting results in occupational pneumoconiosis claims perform the tests on equipment which has been calibrated, serviced and maintained in accordance with the instructions of the manufacturer. Test results produced on equipment which has not been properly calibrated, serviced or maintained clearly should not be considered valid test results for the purposes of evaluating impairment.

II. ADJUSTMENTS FOR ALTITUDE IN BLOOD GAS TEST RESULTS

Blood gas tests are relatively difficult to perform properly, there is considerable inherent variability in the results that are obtained, and results are often hard to evaluate. As a consequence, the second edition of the Guides to the Evaluation of Permanent Impairment of the American Medical Association recommends that blood gas studies be reserved for selected cases, that hypoxemia be documented on two occasions four weeks apart, and that testing be done during exercise. Blood gas testing has nonetheless been an integral part of evaluating impairment due to occupational pneumoconiosis for many years in this State. Doubts about the reliability and significance of this testing have historically been resolved in favor of the individuals claiming benefits. I do not propose to argue that this decision be reversed, or that we adopt entirely the view of the American Medical Association.

It is nonetheless important to recognize that results on blood gas testing can be affected by a number of factors totally unrelated to lung disease. The one factor that can be controlled and corrected most easily and reliably is the effect of altitude on the pO_2. The partial pressure of oxygen in the air we breathe at altitude is lower than in the air we breathe at sea level. As a consequence, the pO_2 of the blood is necessarily lower at altitude than it is at sea level. This

difference in the pO_2 which results from differences in altitude has absolutely no relation to the condition of the lungs at all. If I produce a pO_2 of 75 in Charleston, I will produce a pO_2 of 66 in Beckley if all the other conditions of the testing remain the same. Producing the pO_2 of 66 in Beckley will not in any way indicate that my condition is worse than the measurement in Charleston. To the contrary, it indicates that my condition is the same.

None of the medical experts who have testified thus far has denied that the pO_2 does, in fact, drop with altitude, or that the formula proposed by the Commissioner to adjust for that natural occurrence is accurate. Dr. Rasmussen has, to the contrary, testified at claims hearings that altitude alone accounts for a 10 millimeter of mercury difference between his pO_2 results and those obtained in Charleston. Several witnesses have, however, noted that the amount of the adjustment proposed by the Board is greater than that used in the federal black lung program, and that the federal formula should be used instead. Others have argued that no adjustment should be made at all. The fact of the matter is that comments to the federal black lung regulations make it clear that the Department of Labor's altitude adjustment was adopted for administrative convenience rather than accuracy. 45 Fed. Reg. 13712 (Feb. 28, 1980). The Commissioner should be commended for shifting that emphasis, and undertaking the responsibility for making a more precise adjustment. Once the changes which occur with altitude are acknowledged, it would simply be irresponsible to ignore

those differences. I can think of no good reason why a claimant living in Charleston should have to go to Beckley to have his blood gases tested in order to get the benefit of an artificial change in his measurements which has no relation to the amount of impairment he may have sustained.

IV. TABLES FOR EVALUATING IMPAIRMENT

Some critics have argued that the table for evaluating impairment, insofar as it relates to "total" impairment, is more stringent than the standards applied either to Social Security disability claims or federal black lung claims. I think there are some very good reasons why the standards used to evaluate impairment in this program should be different than those used in either of the federal programs, but before elaborating on those reasons I think it should first be noted that the differences are not as great as have been claimed.

With respect to the ventilatory studies, the standards used are almost exactly the same as those used for Social Security disability cases. If one looks at the tables published at Section 3.01 of Appendix 1 to 20 C.F.R. Part 404, Subpart P, the standards used to determine a totally disabling impairment are, in fact, approximately 40% of predicted values for a 60 year old man; in other words, the standards for determining total disability under the Social Security disability regulations are almost exactly the same as the proposed regulations as they relate to ventilatory studies.

It should be noted that the tables used in both the Social Security disability program and the federal black lung program operate in systems which are very different from and much less elaborate than the West Virginia Workers' Compensation system. First of all, neither federal program authorizes the payment of compensation for partial disability. An individual in West Virginia with some impairment who continues to work could be entitled to a substantial permanent partial disability award, but would receive nothing under either the Social Security disability or federal black lung program. Secondly, claimants of West Virginia workers' compensation benefits can reopen their claims if their condition progresses or worsens, and establish their entitlement to additional benefits. Thirdly, impairments due to all injuries and occupational diseases may be cumulated for purposes of qualifying for a permanent total disability award under the Second Injury Statute in West Virginia. All of these factors combine to make the West Virginia Workers' Compensation system a much more generous and flexible system than either of the two federal programs to which it has been compared.

Dr. Rasmussen has included in his comments an alternative table for the evaluation of impairment based on blood gas studies. The major problem with his table is that it will clearly compensate many individuals who have normal lung function and absolutely no limitation on their ability to either perform work or enjoy life. The forms with which Dr. Rasmussen reports his results indicate a normal pCO_2 of 38 and a low normal pO_2 of 71 for individuals of retirement age. These

results would, under the table suggested by Dr. Rasmussen, show a 15% impairment when adjusted for altitude. With all due respect to Dr. Rasmussen, his criteria for determining the existence of impairment are just too easily met. He has published studies in which he admits that as many as 98% of the individuals he tested over a given period showed evidence of impairment in gas exchange, and that the abnormalities he found in gas exchange were not closely related to age, years of coal mine employment, or smoking history.[1] At the same time, he has acknowledged that this "impairment" does not translate easily to disability and that many of the individuals who showed "abnormalities" in gas exchange were asymptomatic.[2] This system already compensates individuals on the basis of a diagnosis of occupational lung disease without evidence of impairment. There is no sound justification for further expanding the definition of what should be compensated so that we now find compensable impairment in persons who have no symptoms and are in no way disabled.

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[1] Rasmussen, D L: Patterns of physiological impairment in coal workers' pneumoconiosis. Ann NY Acad Sci 200: 455, 1972;

[2] Rasmussen, D L: Discussion. Ann NY Acad Sci 200: 464, 1972.

IV. ADDITIONAL TESTING WHERE TEST RESULTS ARE IN CONFLICT

The proposed regulations provide that the Commissioner may, where there is a discprepancy in the test results obtained in a claim, direct or request additional testing or evidence for purposes of determining the actual level of impairment sustained by the claimant. I commend this proposal, and I think it will go a long way toward alleviating much of the litigation and conflict which has been occurring in occupational pneumoconiosis cases.

One very important factor which affects the reliability of laboratory test results has, however, been overlooked in the regulation. There are a number of professional groups which monitor the quality of laboratory performance, either on a voluntary basis or as a condition for certification. For example, hospital laboratories participate in surveys which test their competence in the performance of various laboratory procedures as a requirement of their certification by the American Hospital Association. Dr. Rasmussen's laboratory in Beckley participates on a voluntary basis in a similar program being operated by the American Thoracic Society. Participation in these surveys does not guarantee the accuracy of every test procedure which is done, but it does indicate that major systematic problems in the laboratory will probably be detected and corrected. Confidence in the procedures of smaller laboratories which undergo no outside monitoring cannot be as high.

I would not recommend that certification or participation in an outside survey be a requirement for any laboratory presenting test results in an occupational pneumoconiosis claim, but I do think that this is a factor which should be taken into account when weighing disparate results.

CONCLUSION

The Commissioner and her staff should be commended for their efforts with these regulations. They are relatively simple and direct despite the complexity of the medical issues with which they deal. I do not believe that you have been presented with any testimony which would indicate that individuals with functional limitations as a consequence of occupational lung disease will not be fairly compensated under these standards. If such testimony were presented, I do not believe it could be supported by reference to the medical literature. These standards are comprehensive and fair, and I recommend that they be adopted with the few minor elaborations I have suggested.

Thank you for giving me the opportunity to testify.

I N D E X

WORKMEN'S COMPENSATION FUND

LOT E. TACKETT,
Claimant,

vs.

BUFFALO MINING COMPANY,
Employer.

Claim No. 79-101957 O.P.
DLE: 6-5-79

Transcript of proceedings had or testimony adduced at a hearing held at the Raleigh County Bank Buildi in Beckley, Raleigh County, West Virginia, on the 17th day of February, 1983, pursuant to notice duly given by the Commissioner to all interested parties.

BEFORE: PAT C. FRAGILE, Trial Examiner

APPEARANCES: TIMOTHY G. LEACH, Attorney at Law,
UMWA, P.O. Box 1313,
Charleston, West Virginia,
counsel for the Claimant.

GEORGE PARTAIN, Attorney at Law,
Valentine, Wilson & Partain,
National Bank Building,
Logan, West Virginia,
counsel for the Employer.

5-31-83 Leach Partain Read

the same results, should we not?

A You should get within a reasonable ball park providing you're dealing with similar type of studies.

Q Now, what range can we expect to see without it being outside the normal?

A You mean variation?

Q Variation. I'm talking about points difference. The Board has testified in this case--Dr. Walker testified, I believe, that he thought 3 to 4 po difference /in the PO_2 was what you could see from lab to lab. Then Dr. Revercomb said he thought it was 3 to 5. What would your testimony in that regard be?

A Well, you're dealing with so much variation, such biological variation, it would be hard for me to put a figure on that. I would certainly think closer to 5 millimeters would be a narrow range for any type of chronic lung disease from day to day. The blood gases did not stay constant. They're really very dynamic. For example, resting blood gases can vary 10 or 15 millimeters of mercury from moment to moment in perfectly healthy people and

so there is less variation with exercise. But there are all sorts of different factors. Relative amount of over ventilation or under ventilation, things like this can alter, say, the PO_2 so that you really don't have as close a system as you would like to think. So that I don't even know that you could put a figure on it. But I would think 5 millimeters would be as narrow a margin as you really would be able to expect, frankly.

Q And what would you say the maximum would be?

A Oh, probably 5 to 7, something like that, would be a reasonable range which you might expect.

Q What do you believe is the normal PO_2 or what would be showing no visibility? I'm sure you're aware that the O.P. Board uses a figure of 75. Do you accept that?

A Well, it depends entirely on what kind of PCO_2 value you have with that, you know. In other words, if you had a PCO_2 of 40 and a PO_2 of 75, I would say that's quite normal. If you had a PO_2 of 75 and a PCO_2 of 25, now you're dealing with a significant degree of abnormality. That's the difference.

Q Well, I'm assuming that the PCO_2 is normal, let's say, there's no factor involved.

A All right.

Q Do you accept 75 as being normal?

A Well, again it depends on the elevation and the age of the patient, to be honest with you. In my laboratory, 75 would be generally normal for anybody 35 or 40 or over with a PCO_2 of 40. I think in Charleston with a PCO_2 of 40, a PO_2 of 75 is probably below what I would anticipate the actual normal to be because of the difference in elevation and if you're dealing with a young man, I would say that would be abnormal.

Q Doctor, how would you account for the large difference between your values you got on February 21, 1974, at exercise of 64 and the value that you got in 1981 of 74 which is ten points? How would you account for that?

A Well, our level was 70.

Q No, I'm talking about--doesn't this one correspond with this one?

A No. Why should it do so?

Q Isn't that the same level of exercise?

A No, you can't depend on that because you have to really look at the oxygen uptake. The oxygen uptake is comparable in the other level here.

Q Doctor, what is the Test No. 1--it's resting, is that correct?

A No, Test No. 1 was relatively light exercise.

Q What degree would that be?

A Well, that's normal.

Q I'm saying Test No. 1, give me the miles per hour of the grade?

A It's two miles an hour, 10 percent grade.

Q Now, what was Test No. 2?

A That was three miles an hour at 10 percent grade.

Q So you got a value of 74 there, correct?

A Right.

Q When you did your test in February of 1974, you reported at three miles an hour, 10 percent grade, 64 which would be ten points difference between those two tests, is that correct?

A Yeah, but you can't use the treadmill sittings. That's one of the difficulties with the treadmill is that you can't compare exercise levels based on treadmill sittings. You have to use oxygen uptake to make that comparison and the

oxygen uptake is equivalent in the 3-0-10 or three miles per hour at 10 percent grade and 74 is equivalent to three miles at 12 percent in this particular 1981 study. That's just the way the oxygen uptake was. The treadmill studies produced considerable variations, so actually there is less than 10 millimeters of mercury difference.

Q You're saying six?

A I'm saying there's a 5 or 6 millimeters of mercury difference. Now, I might say that this degree of difference is a little more than I like to see and a little more perhaps than I would accept as the amount of variation that I might expect to see. So I think there is a differenc and you could question whether it's a differenc in technical difference or whether there was a difference in the man. But I think this does exceed somewhat what I would expect to see by way of difference between tests.

Q In your 1974 study, you had a resting blood gas of PO_2 of 69 and it was 74 in 1981?

A Well, there's no significant difference there and, actually, the values are really more normal tha

the '81 study because the PCO_2 was increased by 3. Well, they're actually equal. The PCO_2 was increased--no, there was actually a difference. The PCO_2 was increased to 37 and the PO_2 was only 66, so that actually they're really comparable.

Q Let me ask you this question: I'm showing you the test that was done at CAMC on February 13, 1981, and you have in front of you the one performed at your laboratory on April 24, 1981. Would you say that there's a sharp difference between those two reports?

A No, not in the resting studies. There is generally about a 10 millimeter of mercury difference between the PO_2 values in Charleston and Beckley.

Q There's 13 points difference there, correct, from 66 to 79?

A Well, here again you've got--let me see. I've got to get my arithmetic straight here. Actually there's not all that much difference. If you had a comparable PCO_2--if this PCO_2 in Charleston were 37 at the same level of gas exchange, then this would be 75 which would be

about one point less or one point more abnormal than ours, so that those are really comparable,besides which the resting values can vary tremendously.

Q What about the exercise, the Board's went up to 88. Now, yours on--that you consider minor exercise, went up to 77. It went up 11 points there. How would you account for that?

A Well, very often you will see an increase in PO_2, a decrease in A-a gradient during light exercise. Then you'll see the blood gases become more abnormal as the exercise levels are increased. That's a very commonly encountered finding in coal miners particularly.

Q Your A-a gradient in '81 was 23.1 and in 1974, it was 35.1. How do you account for that?

A The 1981 A-a gradient was 28.5 and at a comparable oxygen uptake compared to the 35.1 in '74 and I've already indicated that I think that is a greater variation than I would generally accep as being the course of the natural history of coal worker's pneumoconiosis, but it's not tha much different. It's not marked.

BY MR. PARTAIN:

Q Doctor, a ventilatory test is a test of maximum performance, is that correct?

A It's a test that the patient must exert maximum effort, yes, sir, in order to produce a valid test.

Q What about a blood gas test? Is that one--

A No, a blood gas test is really independent of patient effort except for possibly breath holding and various things like that. But in general, the patient has little or no control over the blood gases.

Q Is occupational pneumoconiosis a disease that does not improve?

A Well, we ordinarily think that's the case, that it may produce progressive impairment or remain relatively constant. I must say that there has never been any medical study to this effect, however.

Q Well, my question basically comes down to, if we have a person with, let's say, 20 percent impairment of his lungs due to occupational pneumoconiosis if we test that person at ten different laboratories, we should be obtaining basically

pneumoconiosis?

A No, it doesn't really, I think primarily because of the difference in the degree of exercise the patient underwent. I imagine the primary difference in the blood gas findings, for example, our first exercise level, which was probably higher than the Board's 75-watt level, was normal and I would think that that's the main difference in the studies.

Q So then in the absence of a normal test at a similar level of exercise, you would not be inclined to discount your own examination results?

A No, not at all. In addition to which we have some other corroborating data that would tend to support abnormal lung function.

Q Perhaps you could itemize that for me, sir?

A Well, the results, for example, of the single-breath diffusing capacity for carbon monoxide was reduced to about 64 percent of predicted value and that was at rest and not during exercise. So that would tend to confirm abnormal gas exchange in this particular patient.

MR. LEACH: You may inquire, Mr. Partain.

CROSS-EXAMINATION

Now, I would like to ask you, Doctor, does your 1981 study still indicate impairment, in your estimation?

A It does indicate impairment, yes.

Q And you have categorized it as in the neighborhood of 35 to 40 percent?

A That's what I said.

Q Is that similar to moderate?

A Well, I would say it's more similar to light to moderate would be what my clarification would be.

Q I don't know if you've had an opportunity to see the results of the CAMC examination which took place in between your two examinations.

A No, I haven't.

Q How would you categorize the results of those blood gas studies?

A They look reasonably normal. I would have to calculate the A-a gradient at rest but basically they don't look terribly out of line, to be honest with you.

Q Does the fact that the Claimant obtained reasonably normal studies in between your two examinations alter your opinion as to the impairment due to

Q And your profession?

A I'm a physician specializing in internal medicine and pulmonary diseases.

Q How long have you practiced in the Beckley area?

A For 20 years.

Q How much of that time have you examined individuals to determine pulmonary impairment?

A Probably 18 or 19 years or so.

Q You have examined Mr. Lot Tackett on two occasions, once in 1974 and again in 1981.

A That's correct.

Q Dr. Rasmussen, I do not have your blood gas results for 1974. I have a portion of your report and at the conclusion of the narrative portion you concluded that, "The studies suggest a moderate loss of respiratory functional capacity." Based at least in part upon that report, the Occupational Pneumoconiosis Board evaluated this Claimant's impairment at 25 percent. The Employer had the Claimant undergo repeated resting and exercise blood gas studies at the CAMC Laboratory in Charleston on February 13, 1981, and then you performed an additional study slightly over two months later, April 24, 1981.

EXAMINER FRAGILE: This is the claim of Lot E. Tackett versus Buffalo Mining Company, Claim No. 79-101957 O.P.

This matter comes on for hearing pursuant to the Employer's protest to the Occupational Pneumoconiosis Board's findings of July 29, 1980.

Let the record reflect that the Claimant appears by counsel, Timothy Leach; and the Employer appears by counsel, George Partain.

Gentlemen, is there evidence?

MR. LEACH: The testimony of Dr. Rasmussen.

EXAMINER FRAGILE: I will remind the Doctor he has been previously sworn and you may proceed.

(Witness sworn.)

THEREUPON,

D O N A L D L . R A S M U S S E N ,

appearing as a witness in behalf of the Claimant, being first duly sworn to tell the truth, testified as follows

DIRECT EXAMINATION

BY MR. LEACH:

Q Will you state your name, sir?

A Donald L. Rasmussen.

Q Doctor, what you're telling me then is basically if you look at the blood gas study that was performed in your laboratory on April 24, 1981, and you look at the studies performed at CAMC on February 13, 1981, you say tnat you find them comparable?

A Yes, actually I do. The resting studies are comparable and the exercise. Actually our exercise studies--our first exercise study that we recorded is actually somewhat heavier exercise than the Board's. Now, the Board's was a 75 watt exercise level. That would generally suggest that the oxygen uptake was about 1.2 liters. Okay, that would be relatively light for an individual of 238 pounds because our exercise level which was somewhat higher--our first exercise level in which he had an oxygen uptake of 16.5 CCs per kilo per minute and the Board's level would have been somewhat less than that, you see. So with that level of exercise, the findings are really relatively comparable there. Now, I have felt that 75-watt exercise level is not necessarily adequate to assess function in thes

studies and one point that I would make is that for the disability Social Security progra they look at an oxygen uptake about 17 CCs per kilogram per minute as being more or less the cutoff. In other words, if an individual has abnormal blood gas findings at that level of exercise, then he is considered to be disabled for any significant gainful employment, whereas if you're dealing with working in an underground coal mine or any kind of a coal mine, then that level of exercise is, I think, too light to draw conclusions. But basically, comparing exercise levels, I think our studies and the Board's studies are reasonably comparable in the '81 studies.

Q Even though there is a 13 point difference on the resting blood gas study?

A Well, there really isn't a 13 point difference. There's a 9 point difference because you're just looking at the PO_2. If you make the PCO_{2s} comparable--if you say the Board's PCO_2 should be 37 here, then that would mean that the Board's PO_2 would be 75, see, and ours was 37 and 66, so there you've got a 9 point

difference and that is a difference that is inherent in the difference in elevations. So basically those values are comparable value really.

Q If a person is looking at it, how are they going to know which one to accept as being the true value?

A They can both be the true value. The difference is in Beckley and Charleston and that's the thing If you took 1,000 people and did their blood gases in Charleston, there would be 1,000 of them that would have about a 10 point increase in PO_2 compared to Beckley. It's just because of the fact that your elevation of Beckley is 2,400 feet;barometric pressure is generally around 700 and Charleston is 740 or 750 or something like that. That is the difference and that accounts for that. I have felt for a long time that the Board's value of normal here is incorrect. I think it should be 85 to 105 rather than 75 to 95. If you look at predicted A-a gradients, for example, and then you compare that with--and predict A-a gradient based on the literature, then you look at the

barometric pressure in Charleston, these values I think are too low. The normal values really should be, as I say, 85 to 105 or something like that in Charleston. So that's why you cannot compare the actual PO_2 values directly between Charleston and Beckley. Now, the A-a gradient, you can calculate the A-a gradient to Charleston. You can estimate it and I would have to see it, but our A-a gradient during that comparable exercise level is really normal.

Q His resting was fairly normal?

A His resting was a little abnormal. His resting was abnormal and then he improved with that first level of exercise. But again if you look at our first exercise level and the Board's 75-watt exercise level, there is really again n t a great deal of difference. Ours are norma and the Board's are normal because here again you have a comparable value. If you had a 36 millimeter of mercury PCO_2 in Charleston, then the PO_2 would be 86 which is just 9 millimeters of mercury higher than our 77 on that exercise level.

Q So, Doctor, I take it there is a philosophical difference between you and the Board as to how to calculate these things and what they mean, is that correct?

A Well, I would not necessarily think it would be a philosophical difference. I think again, as I said, that first level of exercise of ours is normal and so is theirs. The difference, I think--I think the philosophical difference is in the amount of exercise that we feel is adequate.

Q You're also saying they should make adjustments because of the difference in altitude between here and Charleston? The altitude here is about 2,400 feet and Charleston is what, less than a thousand?

A Yes. That would make a difference in the PO_2, you see.

Q That would be a philosophical difference, wouldn't it?

A No, that is not philosophical, that's physical.

Q Maybe the language I'm using is different from yours, but you believe certain things should be done from a medical standpoint and they don't accept

those as being medical facts, is that correct? You disagree on those points, right?

A Yes.

Q I don't want to belabor this point, but you have cited the Board the authorities that support your beliefs at any point in the past?

A I don't know that I actually have. They're basically common information in any textbook in terms of barometric pressure and what-have-you. That is--

Q I notice in the Federal Standard they have differences but they seem to be a broader range than you're giving us here today. Am I correct on that? They have three sets of Standards?

A Right, but that's just for convenience. They have broken them down into three elevations.

Q They supported that though with a lot of testimony, didn't they, before they did that?

A Oh, yes.

Q And you testified before them?

A I didn't testify specifically on that particular point.

Q But they took a lot of testimony before they came up

with those three things?

A Oh, yes.

Q And they don't break them down, like I say, between 24 and 1,000?

A Well, they could if they really wanted to.

Q But they didn't?

A It's just that they start splitting numbers. See, they actually--if you will look at their standards and look at the A-a gradients, there is quite a bit of discrepancy between, for example, sea level and 3,000 feet. There's a lot of difference there and so they're basically ignoring that difference.

Q There's a difference of opinion from a medical standpoint among the medical community on that point, isn't there, Doctor?

A I would doubt if there is any difference of opinion. I think it was primarily done as a matter of convenience more than a matter of absolute medical difference of opinion. I think that the philosophical difference that I have with the Board again is the amount of exercise in that they feel that 75-watt exercise level is adequate. I feel that that 75-watt exercise

level is not necessarily adequate for all patients and that you take a heavy individual and I think it's an inadequate exercise level because whatever work that man does is going t[o] require a higher oxygen consumption than a little skinny man doing the same job.

So their philosophy, which I can't really argue with in a sense but their aim is to simulate work conditions, but I maintain that they cannot do that with a single exercise level. Here we get into philosophical differences, you see, and we have those philosophical differences. But the value of PO_2 and PCO_2 between Charleston and Beckley shouldn't be a matter o[f] philosophy. That's just standard well-known information. But that's where the difference [is]

Now, our exercise levels, we went higher than the Board's by quite a bit. Our first one was higher than the Board's but I think when you're doing laboratory testing you are looki[ng] at, say, a six-minute exercise stint. You're not measuring what the individual does over an eight-hour shift. You really don't have any w[ay]

making that kind of measurement. You're not at all sure what you'll find, in other words. You can't really make that judgment.

Q Doctor, you tested him at three different exercise levels?

A Sometimes more and sometimes less.

Q Does any other laboratory around here do that?

A Well, I don't know about around here but it's common practice to do multiple exercise levels, particularly when you're using, what we call, constant work levels, steady state levels. It's a standard procedure to do multiple levels

Q Doctor, just a couple more questions: The Board has testified on numerous occasions that the differences in testing can be accounted for many times by the fact that when the Claimant is being tested he has an upper respiratory infection. Do you agree or disagree with that statement?

A Well, I'm not sure that an upper respiratory infectio would make a change but certainly if you had a lower respiratory infection, a virile infection inside the lung itself, you could certainly get an abnormal degree of impairment which would

show up in your tests. I would agree with that.

Q Let me ask you this question: If you were shown two sets of blood gas studies, and these are not your laboratory but two other independent laboratories and you look down at them and you see one with a resting PO_2, let's say, of 65 and the other one shows a resting PO_2 of 70, which would you accept as being valid yourself

A Both of those. Sixty-five and 70--if one were 65 and the other were 75 or 80, I still would not be able to say, "This one is correct and that one is not," because as I said, the normal variati from minute to minute in resting blood gases, even normal, is quite marked.

Q Let me ask you this question. I'm going to give you hypothetical. You're sitting on the O.P. Boar and you know that 70 is the standard. You're presented two blood gas studies, one 75 and one 70. Are you going to award the man disability predicated on the 70 or say that he doesn't have an impairment and go along with the

A Well, I'm going to say that he obviously had a PO_2 ranging from 65 to 70. If it gets up to 70 at

times--I'm hesitant to even estimate the degree of impairment on the basis of the resting blood gases because they vary so much and then they may not at all reflect what happens during exercise. I would say you would probably--sure, you would go with the 70 if you were dealing with comparable barometric pressures.

Q Seventy over the 75?

A No, no, 65 to 70.

Q No, I gave you 70 and 75, 75 being normal for the Board.

A Oh, in 70? Well, again my answer would be the same. You could simply say that that much variation--

Q His range then would be up to 80, right?

A Oh, yeah, you could expect that much change there and so even--you certainly wouldn't consider that that showed much impairment if he were even 70 or--in other words, if it were only 70 instead of 75, you're not talking about very much change there, you see. This is one of the reasons that using the A-a gradient, it tends to circumvent some of those problems of ventilation since that is relatively more

constant than the actual level of PO_2 and PCO_2 because that takes into account the difference in elevation; A-a gradient.

Q Again--do you know how much reliance the Board places on the A-a gradient?

A Not very much.

Q Again you have a difference in medical opinion, I take it, is that correct?

A Yes.

Q Is this common among the medical community, that you all would argue over this point?

A Not for the most part.

Q Do you feel that the majority support you or the Board?

A I would feel that the majority would support my view that the A-a gradient is a more reliable number to look at than the actual value of PO_2.

Q One last question and I'll quit. I believe it's true that a reduced cardiac function can lead to abnormal blood gases by virtue of its effect on the lung function?

A Cardiac output, yes.

Q Can this give us a variance from time to time because

a person might have a heart condition that flares up on them?

A Well, I cannot answer that as an expert in terms of cardiac output except that I would say that if you had an untreated cardiac condition with a reduced cardiac output and you were able to treat it and improve cardiac function, that conceivably could be the case. But I don't believe you're going to find variation from time to time in an individual unless you are treating that patient or unless he does have, say, an acute myocarditis or some other acute cardiac disease. I will say that there is nothing to suggest cardiac impairment on the basis of the fact that this man's heart rate increases. Certain drugs, for example, can reduce cardiac output. For example, Inderal does that but that does that primarily by reducing heart rate and this is not the case in this particular individual.

MR. PARTAIN: I don't have any further questions.

REDIRECT EXAMINATION

BY MR. LEACH:

Q Dr. Rasmussen, do you know if the Department of

Labor uses the A-a gradient in determining impairment?

A They don't use the A-a gradient as such but they have the equivalent of that A-a gradient in terms of the sliding scale between PO_2 and PCO_2. In other words, that makes a difference.

Q I'll get back to that point in just a second. What about the Health, Education and Welfare, Social Security Administration?

A Well, the Social Security Administration uses primarily blood gas values although they are also cognizant of their relative A-a gradient in this.

Q And the AMA's Physician Guide for determination of impairment, does that use an A-a gradient?

A No, they don't talk about A-a gradient. They don't talk about PO_{2s}. They talk about saturation.

Q I've seen Dr. Budington talk about Class I, Class 2, Class 3 impairment based on his A-a gradient. Do you know where he--

A I've tried to find that and I can't find it. I think that Dr. Wright & Gansler in an article in 1966 talked about the A-a gradient and an A-a gradient of, say, over 30 in their mind is

considered to be moderate impairment.

Q Now, you talked about the relationship of the PCO_2 and the PO_2 and as I understand it, it's your testimony that you cannot compare PO_{2s} from different test dates without also making a comparison of the PCO_2?

A That's correct.

Q And there's an inverse relationship between the PCO_2 and the PO_2;as the PCO_2 drops, the PO_2 goes up?

A That's correct.

Q Is that a one millimeter to one millimeter ratio?

A Essentially, yes.

Q And that is the standard that has been adopted by the Department of Labor in determining what PO_2 will be the cutoff point for total disability?

A That's right. The same is true of the Social Security disability program.

MR. LEACH: Okay, thank you, Doctor.

MR. PARTAIN: I have nothing further.

(Witness stands aside.)

MR. LEACH: The claim should be continued to the O.P. Board for consideration of the Doctor's

testimony.

MR. PARTAIN: I agree.

EXAMINER FRAGILE: The claim is continued to the O.P. Board.

I, Sybil J. Martin, do hereby certify that the foregoing is a true and accurate transcript of all proceedings heard in the aforementioned claim as set forth in the caption hereof.

Martin

Reporter

The Honorable Mary Martha Merritt,
West Virginia Workers' Compensation Commissioner
601 Morris Street
Charleston, West Virginia 25301

RE: Workers' Compensation Fund
Leg. Rule, 23-1
Series 1, Sec. 20.8.

Section 20.8. Standards for Medical Examination.

The proposed legislative rules, as described, are basically medically sound and based on reasonably established medical criteria. A few exceptions should be raised:-

Under III, p.4.

1. It should not be mandatory that the subject perform the M.V.V. in the sitting position. In most cases, the patient should perform the full spirometric study in the standing position and an unnecessary variability should not be introduced into the study i.e. different positions.

2. Arterial blood gas studies. p.5.

   1. A & H: There is no necessity to give a local anaesthetic for single arterial puncture in most instances. It is frequently not necessary to give a local anaesthestic even for the introduction of a canula or catheter. The gauge of the needle is not critical nor it is critical that a plastic indwelling catheter be used - a metal canula, such as a Riley Needle, is equally satisfactory.

      G: This should read "All blood samples must be iced OR analyzed immediately (in less than ten minutes)".

      I: There is no scientific reason why a bicycle ergometer is preferable to a treadmill for exercise studies or vice versa.

COMMENT:

Arterial blood gas analysis has inherent problems in being nonspecific, invasive, lacking in sensivity, and influenced by body position, hyperventilation, obesity, others complication and associated medical conditions such as cardio-vascular disease, intercurrent respiratory disease such as asthma or pneumonia, etc. Subjects with normal lungs may have a decrease in pa02, and falls of between 10 to 30 mmHg in the P02 are common when an obese subject assumes the supine position. In addition, as outlined, correction factors for altitude should (must) be applied to predicted p02 values, since normal values in high altitude cities differ significantly from values at sea level. Age also has a profound effect on Pa02 - see Fig. 3-22 attached. Heavy cigarette smoking just prior to an arterial blood gas study may lower the p02 value.

Exercise testing is an important physologic tool. However, it is seldom necessary to perform these tests in determining impairment in occupationally related pulmonary disease as such can be effected by simpler means. Further, exercise impairment has many causes other than pulmonary impairment. Exercise testing is best reserved for those claimants whose lung function is borderline.

The exercise approach can be helpful in distinguishing pulmonary from cardiac impairment, and in apportioning the relative contributions to overall impairment when both pulmonary and heart disease are present in the same subject. When the cardiac output fails to increase commensurately with the increased workload, the pulse rate rises inappropriately and becomes maximal at a lower than expected workload. By contrast, subjects with lung disease are limited by ventilation, so that with exercise their heart rate does not approach the predicted range and their limitation occurs as a result of an inability to increase ventilation to an appropriate level.

The detection of impairment should be done in a simple and as noninvasive fashion as possible, using simple and objective tests. In deciding who is disabled, what is important is not the percentage loss of function but the residual capacity or function, since this determines work capacity.

Overall, the recommendations are medically sound and are based on reasonable scientific evidence when all parameters of the various causes of impairment are properly considered and assessed. I have had many patients over the years who have had significantly greater respiratory impairment than herein provided as indicating impairment and who carried out successfully heavy manual labor. Many cardiac patients with p02 values significantly below 70 mmHg successfully perform manual labor. As previously indicated arterial blood gas results must be corrected for altitude and for age. The correction factors as proposed for altitude are appropriate. Correction factors for age should be added.

The p02 does vary within limits to changes in the pC02 and adjustments should be made to consider these physiologic effects. Significant hyperventilation in a normal person will cause an increase in the p02 and significant hypoventilation will cause a decrease in the p02. In most cases, mild hyperventilation (pC02 35-30 mmHg) does not produce significant effects.

Ventilation studies (spirometry) to be valid must show maximal effort and reproducibility, among other criteria, to be valid. Where a study is technically invalid because of lack of effort and/or reproducibility and yet the obtained values are normal, then the study can be taken

to indicate normal function without evidence of impairment. Wherein a study is invalid and shows abnormally low function, the results must be disregarded.

Severe respiratory impairment from any cause may interfere with a patients' ability to perform adequately because of severe weakness, excessive fatigueability, emotional upset or paroxysmal coughing. Fortunately, this is somewhat rare.

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Respectfully submitted,

Richard P. O'Neill, M.D., FCCP
Governor American College of Chest Physicians

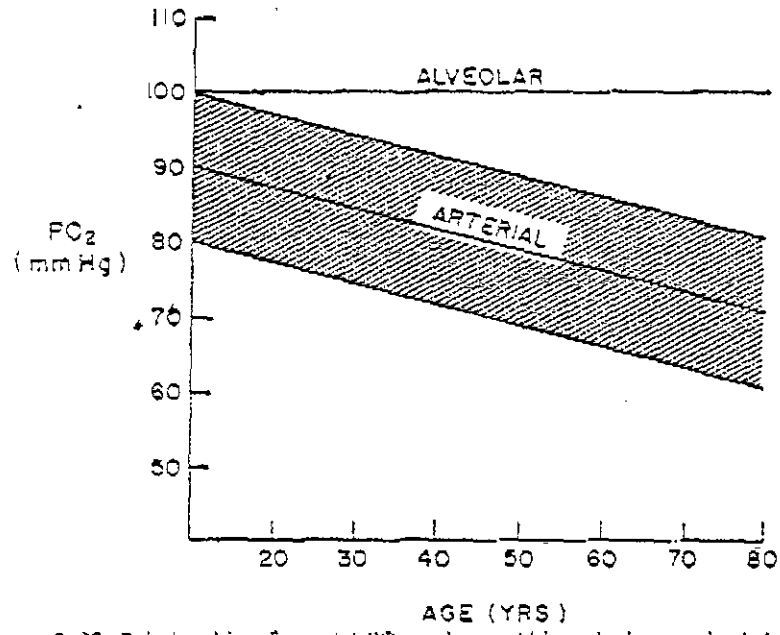

Figure 3–22. Relationship of arterial PO_2 and age. Although the standard deviation is shown as the same for young and older subjects, in practice it is greater in the older subject.

Table 5–5. RATING OF VARIOUS RESPIRATORY FUNCTION TESTS

Criteria	FVC	FEV_1	FEF_{25-75}	Peak Flow	FEF_{50}	FEF_{75}	Lung Volumes TLC and RV	CV	$D_{L_{CO}}$	Blood Gases	$(A\text{-}a)O_2$
Acceptability	− + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	− −	− −
Simplicity	+ + +	+ + +	+ + +	+ +	−	−	−	±	−	−	− −
Objectivity	+ +	+ +	+ +	−	+ +	+ +	+ + +	+	+ +	+ + +	−
Reproducibility	+ + +	+ + +	− −	+ +	−	− −	+	±	+ +	+ +	±
Accuracy	+ +	+ + +	±	+	±	±	±	−	+ +	−	±
Sensitivity	+	+ +	+ +	+	±	+	− −	+ +	+ +	−	+
Specificity	+ +	+ + +	−	+	−	−	−	− −	±	− − −	−

CURRICULUM VITAE

NAME:	Richard Patrick O'Neill
DATE OF BIRTH:	January 7, 1932
PLACE OF BIRTH:	Dublin, Ireland
PRESENT POSITION:	Private Practice - Internal Medicine, Specializing in Pulmonary Diseases and Occupational Diseases of the Lung 2366 Nicholasville Road Suite 603 Lexington, Kentucky
EDUCATION:	
UNDERGRADUATE:	1948-St. Vincent's College, Castleknock Co., Dublin, Ireland
GRADUATE:	1955-Medical School, University College, Dublin, Ireland (N.U.I.), M.B., B.A.O., B.C.H.
GRADUATE TRAINING:	1955-56 - Rotating Intern, Jervis St. Hospital, Dublin, Ireland, and Guy's Hospital, London, England. 1956-58 - Residency, Kings College, New Castle-on-Tyne, England, and General Hospital, Stornoway, Scotland. 1958-61 - Clinical Fellow, Inernal Medicine, Lahey Clinic, Boston, Massachusetts 1961-64 - Research Fellowship (U.S.P.H.S., N.I.H.), University of Pittsburg, Pittsburg, Pennsylvania.
TEACHING APPOINTMENTS:	1964-69 - Assistant Professor of Medicine, Department of Medicine, University of Kentucky Medical Center, Lexington, Kentucky 1969-80 - Associate Professor of Medicine, Department of Medicine, University of Kentucky Medical Center, Lexington, Kentucky.
CONSULTING POSITIONS:	Veteran's Administration HOspital, Lexington, Kentucky State of Kentucky Respiratory Disease Hospital Group Advisor Federal 'Black Lung' Program

Central Baptist Hospital, Lexington, Kentucky
Good Samaritan Hospital, Lexington, Kentucky

CERTIFICATIONS:

1958 - Irish Board Internal Medicine - M.D.

1958 - English Board Internal Medicine - M.R.C.P.

1971 - Fellow American College of Chest Physicians - F.A.C.C.P.

HONORS AND AWARDS:

1964-68 - Co-investigator COAD Study (N.I.H.)

1971-76 - Pulmonary Academic Award (Career), N.I.H. Heart and Lung Institute

MEMBERSHIPS:

Irish Medical Society
British Medical Society
Kentucky Thoracic Society
American Thoracic Society
American Association of University Professors
Civil War Round Table Historical Society
Inhalation Therapy Committee
Community Medicine Fungal Disease Program
American College of Chest Physicians-GOVERNOR

COMMITTEES:

Advisor-Presidential Committee on Black Lung Disease
Educational Board Pulmonary Academic Awardees (N.H.L.I.)
Past President-Kentucky Thoracic Society (1977-1978)
Kentucky Occupational Safety and Health Standard Boards
Department Chairman's Committee on Residency Program
Medical Records Audit Committee - Chairman
Governor-American College of Chest Physicians
Course Director-3rd Year Medicine Clerkship (1965-1975)

RESEARCH GRANTS:

1964-69 - Co-investigator Chronic Obstructive Lung Disease. Grant: U.S.P.H.S., #H#:08932-02:HE:05821

APPOINTMENTS:

Member-Medical Center Development Fund (1975-1980)
Attending Physicians: University of Kentucky Medical Center (1964-1980)
Attending Physician: Veteran's Administration Hospital, Lexington, Kentucky (1964-1980)

PRESENTATIONS:

Report and Critical Analysis on Coal Worker's Pneumoconiosis - Medical and Medico-Legal Aspects. Delivery before the United States Senate, Washington, D.C., November 1978 (Paper published by National Archives, Washington, D.C.)

BOOKS:

CHAPTERS:

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MEETINGS ATTENDED: Annual attendance 1964-1983

American Thoracic Society Meeting
American College of Chest Physicians
Kentucky Thoracic Society
Kentucky Chapter-American College of Chest Physicians

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ROSS MARUKA
C. PATRICK CARRICK

Exhibit 11

June 21, 1985

Mary Martha Merritt, Commissioner
Workers' Compensation Fund
601 Morris Street
Charleston, WV 25305

Re: Proposed Legislative Rules
for O.P. Claims

Dear Commissioner Merritt:

Time has not allowed me to prepare detailed written comments to your proposed legislative rules for occupational pneumoconiosis claims. However, I do wish to make some general observations for your consideration.

It is well established that our Workers' Compensation Act is remedial in nature and must be liberally construed to the benefit of claimants. It follows that any attempt to promulgate rules to implement this Act must also be guided by the same liberal purpose. It is therefore unfathomable that your proposed rules would be more strict and conservative than either the United States Department of Labor Regulations for implementing the Federal Black Lung Program or the Social Security Disability Program as it relates to assessment of cardiopulmonary impairment. Specifically, I invite you to compare the values which must be achieved through pulmonary function tests or blood-gas studies to establish total disability in the federal programs with the comparative permanent partial disability award which would result from applying the subject proposed rules to the same test results.

Additionally, the degree of correction proposed to account for the effect of elevation on blood-gases is also unnacceptabl Granted, some adjustment at significantly high altitudes is appropriate. I again invite you to compare your proposed correction formula with that used in federal programs. Certainly there is no rational basis for the degree of correction you propose. Rather, your proposed correction for elevation appears to be a poorly concealed effort to diminish the efficacy of test results from certain excellent laboratories in whom substantial populations of miners place their reliance and trust.

Workers' Compensation Fund
601 Morris Street
Charleston, WV 25305

I support the effort to establish basic quality standards to guide you in adjudicating claims. I would however caution you to consider whether your proposed rules are so far removed from the remedial purpose of the Act as to ultimately fail the inevitable test of Court scrutiny.

Very truly yours,

C. Patrick Carrick

CPC/vr

Exhibit 12

PROPOSED RULES

OF THE

WORKERS' COMPENSATION COMMISSIONER

STATEMENT

BY

WEST VIRGINIA LABOR FEDERATION, AFL-CIO

JUNE 21, 1985

MORGANTOWN, WEST VIRGINIA

WILBUR C. YAHNKE

DIRECTOR

COMPENSATION SERVICES

WEST VIRGINIA AFL-CIO

My name is Wilbur Yahnke. I am Director of the West Virginia Labor Federation, AFL-CIO's Compensation Services program, as well as an impaired worker. The AFL-CIO represents more than 60,000 members and their families, in matters relating to workers compensation benefits, from application for, to legal representation through the office of our General Counsel.

As Director of that program, I wish to speak to you on behalf of those thousands of persons who have no voice in these proceedings.

Initially, I would like to state that standardization of testing is the proper position for the Commissioner to take and much appreciated, since it will allow clinicians around the state to be assured that their findings are "in line" with the O. P. Board's testing procedures.

Unfortunately, this commentator has no scientific or medical background on which to make proper value assessments of many of the proposed rules and must rely on medical consultation. From this perspective, I will address the agenda:

VENTILATORY FUNCTION TESTS

SECTION II - Mandatory Nose Clip Use:

While the variety of testing rules proposed generally complies with that of the American Thoracic Society, there exists a deviation on those standards inasmuch as ATS recommends nose-clip use, but does not require it.

RECOMMENDATION: ADOPTION OF ATS STANDARDS WHERE THEY DIFFER FROM PROPOSED RULES.

SECTION III - MAXIMUM VOLUNTARY VENTILATION

DISCUSSION WITH SEVERAL DOCTORS WITH CONSIDERABLE EXPERTISE IN PULMONARY MEDICINE INDICATES THAT THIS TEST HAS LITTLE VALUE, IS CUMBERSOME, WORKS A HARDSHIP ON THE SEVERELY DISABLED AND SHOULD BE MADE OPTIONAL, IF NOT ELIMINATED.

RECOMMENDATION:

A. PERMIT THE MVV TO BE OPTIONAL; IF NOT, PERMIT THE TEST TO BE DONE IN THE SITTING POSITION PURSUANT TO RULE 718.103 - U.S. DEPARTMENT OF LABOR.

ARTERIAL BLOOD GAS STUDIES

SECTION E - DIRECT PUNCTURE SHOULD BE OPTIONAL, AS AN ALTERNATIVE, A CATHETER MAY BE USED.

SECTION G - THIS SECTION SHOULD READ: "ALL BLOOD GAS SAMPLES SHOULD BE ANALYZED IMMEDIATELY OR ICED." THERE IS NO NEED TO ICE THE SAMPLE IF ANALYZED IMMEDIATELY.

SECTION I

AS PREVIOUSLY INDICATED, MY EXPERTISE IS LIMITED AND, IN THIS PARTICULAR AREA, NON-EXISTANT. I WOULD URGE THAT VERY SERIOUS CONSIDERATION BE GIVEN TO THE OBJECTIONS AND RECOMMENDATIONS OF DR. DONALD L. RUSMUSSEN OF BECKLEY, REGARDING METHODOLOGY. IN ADDITION, I WOULD ESPECIALLY URGE THE FUND TO ADOPT ITS OWN CERTIFICATIO PROGRAM FOR CLINICIANS AND LABORATORIES RELATIVE TO PROFICIENCY IN

BLOOD GAS STUDIES, AS RECOMMENDED BY DR. RASMUSSEN.

FURTHER, THERE IS CONSIDERABLE OBJECTION TO THE PROPOSED RULE FOR ALTITUDE CORRECTION, SINCE THE PROPOSED RULE IS CONSIDERABLY MORE STRINGENT THAN THAT WHICH IS APPLIED BY THE SOCIAL SECURITY ADMINISTRATION OR THE FEDERAL BLACK LUNG PROGRAM. ALL INDICATIONS ARE THAT THE ADJUSTMENTS SHOULD BE 1.67 MMHG PER 1000 FEET OR 1 MMHG PER 600 FEET. I RECOMMEND THAT VALUE BE ADOPTED.

TABLE OF IMPAIRMENT OF PULMONARY FUNCTIONS

ON THIS SUBJECT, MY INITIAL COMMENT RELATIVE TO THIS SECTION IS THE WORD "INDICATOR". WHILE IT MAY BE AN INDICATOR TO THE O.P. BOARD, IN REALITY, THE O.P. BOARD'S RECOMMENDATION BECAME GOSPEL INTERNALLY AND THEIR FINDINGS TRANSLATES TO AN AWARD OF DISABILITY AND THAT TRANSLATES TO A GRAVE DISSERVICE TO WORKING WEST VIRGINIANS, IF THE PROPOSED TABLE IS FORMALLY ADOPTED; SINCE I SUSPECT, IT HAS ALREADY BEEN IMPLIMENTED. I STRENUOUSLY OBJECT TO THE ADOPTION OF THIS TABLE AND CITE THE PREVIOUS TESTIMONY OF DR. RASMUSSEN AND DR. GREGORY WAGNER AND THEIR RELIANCE ON THE ADMINISTRATIVE RULES OF THE U. S. DEPARTMENT OF LABOR AND THE SOCIAL SECURITY ADMINISTRATION.

IN ADDITION, I WOULD REMIND YOU THAT THE INTENT OF OUR WORKERS' COMPENSATION STATUTE IS REMEDIAL AND <u>SHOULD</u> BE COMPASSIONATE WHEN CONSIDERING THE ISSUE OF IMPAIRMENT, BEING EVER MINDFUL OF NOT ONLY THE MEDICAL ASPECTS OF DISABILITY, BUT ALSO AN INDIVIDUAL'S ABILITY TO WORK, TO OBTAIN AND RETAIN EMPLOYMENT, AND TO THE QUALITY OF LIFE, NOT <u>JUST</u> BEING ALIVE.

IN SUMMATION, I WOULD REMIND YOU AND THE LEGISLATIVE

RULE MAKING COMMITTEE, ALTHOUGH I DOUBT THE NECESSITY, OF HOW WEST VIRGINIANS SUFFERED AT THE HANDS OF SOCIAL SECURITY IN THE EARLY PART OF THIS DECADE. NOW I MUST REPORT TO MY MEMBERSHIP THAT IT MAY BE MORE DIFFICULT TO OBTAIN FAIRNESS FROM WEST VIRGINIA WORKERS' COMPENSATION THAN SOCIAL SECURITY. I WOULD URGE THAT SERIOUS EVALUATION BE GIVEN TO MY OBJECTIONS, AND OTHERS, AND THAT YOUR POSITION BE MODIFIED TO REFLECT A MORE HUMANE, COMPASSIONATE AND REALISTIC POSITION.

BEFORE THE COMMISSIONER OF THE WORKERS' COMPENSATION FUND

In Re: Proposed Legislative Rules
Standards in Occupational Pneumoconiosis Claims
Leg. Rule, 23-1
Series I, Sec. 20.8

Exhibit 13

COMMENTS ON BEHALF OF

APPALACHIAN POWER COMPANY
BARBOUR COAL COMPANY
BRUCE MINING COMPANY
CEDAR COAL COMPANY
CENTRAL APPALACHIAN COAL COMPANY
CENTURIAL PRODUCTS CORPORATION
GRAFTON COAL COMPANY
KAISER ALUMINUM & CHEMICAL CORPORATION
SOUTHERN APPALACHIAN COAL COMPANY
SOUTHERN OHIO COAL COMPANY
TYGART COAL COMPANY
WINDSOR POWER HOUSE COAL COMPANY

Joseph S. Beeson
Brent D. Benjamin

ROBINSON & McELWEE
600 KB&T Center
P. O. Box 1791
Charleston, WV 25326

COMMENTS OF APPALACHIAN POWER COMPANY, BARBOUR COAL COMPANY, BRUCE MINING COMPANY, CEDAR COAL COMPANY, CENTRAL APPALACHIAN COAL COMPANY, CENTURIAL PRODUCTS CORPORATION, GRAFTON COAL COMPANY, KAISER ALUMINUM & CHEMICAL CORPORATION, SOUTHERN APPALACHIAN COAL COMPANY, SOUTHERN OHIO COAL COMPANY, TYGART COAL COMPANY, AND WINDSOR POWER HOUSE COAL COMPANY

June 21, 1985
Morgantown, West Virginia

Pursuant to the notice filed in the office of the Secretary of State on May 14, 1985, Appalachian Power Company, Barbour Coal Company, Bruce Mining Company, Cedar Coal Company, Central Appalachian Coal Company, Centurial Products Corporation, Grafton Coal Company, Kaiser Aluminum & Chemical Corporation, Southern Appalachian Coal Company, Southern Ohio Coal Company, Tygart Coal Company, and Windsor Power House Coal Company, jointly file these comments on the proposed legislative rules of the Workers' Compensation Commissioner, Series I, Sec. 20.8. As employers in West Virginia, these proposed legislative rules regarding standards for medical examinations in occupational pneumoconiosis claims could have a substantial impact on our business and on the general business environment of West Virginia.

The proposed legislative rules regarding standards for medical examinations in occupational pneumoconiosis claims represent a significant work effort. In reviewing these proposed standards, we believe the Workers' Compensation Commissioner has made great progress in resolving the problems identified by the Supreme Court of Appeals in Javins, et al., v. State Workers' Compensation Commissioner, No. 16156 (W. Va. June 27, 1984). We

agree that a fair and reasonable uniformity must exist in examination and evaluation criteria. We appreciate the opportunity to participate in the promulgation of the final standards to be submitted to the Legislature and offer these comments in support of the proposed standards.

General Standards for Medical Examination

At page one, the provision at paragraph two permits the Occupational Pneumoconiosis Board (hereinafter, O.P. Board) to obtain additional testing where ventilatory function tests performed in reasonably close proximity in time produce differing but acceptable results. Due to the permanent and irreversible nature of the disease, the valid test producing the best results should always be used. There is no significant dispute in the medical profession on this point. Attached as "Appendix A" is a portion of a transcript of testimony from Donald E. Rasmussen, M.D., in which he acknowledges the validity of this position. See also Tomashefski, "Compensation and Disability," The Selective and Comprehensive Testing of Adult Pulmonary Function, p. 305, Futura Publishing Co., 1983. Note also Dr. Rasmussen does not dispute the proposed approach in his comments filed at the public hearing in Beckley, West Virginia, on May 31, 1985. The provision at page one of the proposed regulations for additional testing will ensure that an additional measure of medical certainty is available in questionable cases to determine the "true" measure of a claimant's abilities, and goes further than the medical profession would require.

There is no reason, however, to limit such an approach to ventilatory studies. We agree that such a mechanism would also be helpful with blood gas testing. As with ventilatory studies, there appears to be no dispute but that the valid test producing the best results should always be used. This additional measure of scientific certainty should therefore be extended to blood gas testing as is provided by paragraph three at page one.

Ventilatory Function Studies

The proposed rules concerning ventilatory function testing requiring certain uniform procedures to be followed are quite comprehensive and require little comment. The clear delineation of the procedure to be followed in all such testing will permit accurate comparison of results between different examiners and different laboratories and thereby ensure that the true measure of a claimant's impairment is gauged. A claimant's disability will be based on his "true" pulmonary impairment and not on which laboratory tested him.

In the interest of uniformity, we believe that in FEV_1 and FVC testing, as in the MVV testing, the subject should be seated. By standardizing the precise way in which a subject is tested, comparisons between laboratories will obviously be more accurate. Further, by standardizing the sitting position, the subject will be more relaxed, helping to minimize problems with hyperventilation. The provision at (II), on page three (3), that a noseclip be used during FEV_1 and FVC testing is appropriate in testing. Sobal, "Spirometry and Forced Flow Studies", The Selective and

Comprehensive Testing of Adult Pulmonary Function, p. 36, Futura Publishing Co., 1983, and Boushey and Dawson, "Spirometry and Flow-Volume Curves," Pulmonary Function Testing Guidelines and Controversies, p. 66, Grune & Stratton, Inc., 1984. The requirement at (G) on page four (4) of three satisfactory curves is well supported by medical literature. The maximum variation of 7 percent is certainly quite liberal. The literature recommends a maximum variation of no more than 5 percent. Sobol, supra, at p. 36; and Boushey and Dawson, supra, at pp. 67-68.

Finally, the results of ventilatory testing submitted from any laboratory should specifically indicate the subject's age, weight, height, sex, and race. Such characteristics are important in assessing the prediction factors to be used in reviewing a subject's test results. See Harber et al., "Statistical 'Biases' in Respiratory Disability Determinations", American Review of Respiratory Disease, 128:3, pp. 413-418, September, 1983; Morgan, "Clinical Significance of Pulmonary Function Tests", Chest, 75:6, p. 714, June, 1979; and Clausen, "Prediction of Normal Values," Pulmonary Function Testing Guidelines and Controversies, p. 50, Grune & Stratton, Inc., 1984. Further, the source of such prediction factors should be identified on the submitted report.

Arterial Blood Gas Studies

The proposed standards regarding arterial blood gas studies beginning at page five, like the proposed standards for ventilatory studies, are quite comprehensive and form an excellent basis

for ensuring comparability and uniformity of testing procedures. We do, however, have some concerns about the amount of exercising required, as well as the form that such exercise takes.

At the outset, it should be noted that arterial blood gas testing and exercise testing are useful only in certain cases. Thomashefski, supra, at p. 308. Indeed, blood gas testing may be unnecessary in light of its cost versus its utility. Morgan et al., "Respiratory Disability in Coal Miners," J.A.M.A., 234:23, pp. 2401-2404, June 20, 1980. However, the optional use of blood gas testing is yet another example of the added measure of scientific certainty present in these proposed rules to ensure that a claimant's "true" impairment is measured.

In selecting the means by which a subject is exercised, we believe that the goals of uniformity and comparability of results cannot be too heavily emphasized. Therefore, one form of exercise must be the norm. The use of a bicycle ergometer as the norm in blood gas testing is an excellent choice due to the limitations inherent in the use of the common treadmill. (Wasserman and Whipp, Exercise Physiology in Health and Disease, American Review of Respiratory Disease, Vol. 112: 229-249, 1975.) The amount of exercise performed at a given speed and and grade on a treadmill will be greater for a heavy person than for a normal person. An obese person must support his weight and move his "heavy" legs. (Id., at p. 229). In addition, there is no accuracy problem with bicycle ergometry similar to that encountered with the use of a treadmill for individuals with longer legs than normal. See Hansen, "Exercise Testing", The Selective

and Comprehensive Testing of Adult Pulmonary Function, Futura Publishing Co., 1983. A bicycle has the added advantage that the subject may stop the test immediately in the event an emergency health condition arises. See Hansen, supra, at p. 276. Other considerations include the cost of the machine, and the easier job of blood withdrawal during exercise. Id. Furthermore, bicycle ergometry avoids other problems, such as a subject supporting himself on the treadmill's handrails. (Wasserman and Whipp, Exercise Physiology in Health and Disease, American Review of Respiratory Disease, Vol. 112: 229-249, 1975.) The advantages of using a bicycle ergometer rather than a treadmill are substantial. To ensure uniformity, only bicycle ergometers should be used absent a physical incapacity of the subject as provided in the proposed standards.

Paragraph (G) at page six (6) clearly addresses the need to have blood samples analyzed quickly to avoid low PO_2's. The proposed rules should limit storage in ice to a maximum of 1½ to 2 hours. Id. at p. 242.

Regarding the amount of exercise needed in blood gas testing, the present rates of exercise which have been in use by the O.P. Board would appear to be a most fair measurement of exercise. There are those, however, who believe that heavy exercise approaching the maximum a subject can endure is appropriate as an added level of exercise. Such testing is unnecessary in light of the work loads encountered in today's occupations, and, therefore, does little more than measure a subject's

physical conditioning, not his blood gas abnormalities. Morgan, supra, at p. 714.

Passmore (Physiological Review 35: 801, 1955) showed that Scottish miners who required much more physical exertion in performing their jobs than do American miners today had oxygen consumption ranging from a maximum of approximately 1.34 liters per minute (or 5 Mets) during heavy labor to a low of .3 liters per minute of oxygen consumption (or approximately 1.04 times the metabolic rate) at rest. At least one study (Harber, Tamimie, and Emory, Estimation of the Excition Requirements of Coal Mining Work, Chest /85/2; p. 226-231, February, 1984) found mean exertion levels of 3.3 Mets for American miners, equivalent to that estimated for "moderate" work or a vocational activities such as bowling. The present level of work performed by the O.P. Board of 75 Watts on a bicycle for an average-sized man would result in approximately 5.5. times the resting metabolic rate, or 5.4 Mets. Such current testing, therefore, goes beyond the mean exertion requirements found in American coal mining.

The level of 120 watts possible as an optional additional exercise level at page six (6) of the proposed standards also goes well beyond the mean exertion requirements found in West Virginia coal mines. Such an additional level will certainly give a claimant the benefit of the doubt in pulmonary impairment assessments, and should also address the concerns of those who advocate exercise levels higher than those which have been used in the past. We agree that the proposed regulations should strictly limit the levels of exercise to 75 watts and 120 watts

in light of the need to have comparable test results from laboratory to laboratory. To permit testing at other levels would destroy this comparability and in so doing destroy the uniformity and predictability sought by these proposed regulations. In light of the realistic oxygen consumption rates of the occupation affected by these proposed regulations, anything in excess of 120 watts would certainly be a measure of something other than pulmonary function.

Concerning the length of the exercise period at page six, we agree with the proposed regulations requiring five minutes of testing at a steady state. We recognize that according to some authorities, this period is too long. Hansen, supra, at page 267. However, some fixed time limit is necessary to permit adequate comparison of test results from laboratory to laboratory. The only alternative would be incremental exercise testing. While incremental testing is in many respects comparable to steady state testing, such incremental testing requires sophisticated instruments for rapid analysis (often breath by breath).

A primary purpose of these proposed regulations is to permit easy and accurate comparisons to be made between laboratories. We seriously doubt that all, or even most, of the laboratories in West Virginia are equipped for such incremental testing. Thus, in light of the stated purpose of these proposed regulations, only steady state testing should be used. The alternative would require workers to seek out those laboratories equipped for incremental studies, and would be detrimental to those laboratories not so equipped.

IMPAIRMENT DETERMINATION

The only truly correct method of determining what is a normal test result for a given site is for each laboratory to undertake extensive pulmonary function and blood gases testing on a sufficient number of "normal" subjects of all ages, heights, sexes, races. Obviously, this is neither practical nor realistic. Therefore, West Virginia laboratories rely on test results performed elsewhere in the United States. In order to utilize accurate results, such uniform studies must be tailored to the individual specifications of the laboratory that is being used. Sobol, supra, at p. 50. An example of such correction is pressure and temperature at the test site. Bickerman, "Lung Volumes, Capacities, and Thoracic Volumes," The Selective and Comprehensive Testing of Adult Pulmonary Functions, p. 7, Futura Publishing Co., 1983.

The concept of altitudinal adjustments in arterial blood gas studies is an excellent and necessary method by which to standardize results obtained at different laboratories around West Virginia. The variation caused by altitudinal differences is widely recognized by pulmonary physicians. Note the excerpt from the deposition of Dr. Rasmussen attached as "Appendix C". See also Epler et al., "Determination of Severe Impairment (Disability) in Interstitial Lung Disease," American Review of Respiratory Disease, 121:656, 1980; and the American Thoracic Society's Guide to Impairment Evaluation (reprinted at American Review of Respiratory Disease, 126:5, p. 949, November, 1982).

For example, medical experts would agree that the results obtained at Harpers Ferry and those obtained at Bluefield for the same individual would be different.

The proposed regulations reasonably incorporate such a difference. Yet, for purposes of these standards, Dr. Rasmussen and other commentators on the regulations would effectively ignore such altitudinal differences for the majority of West Virginia. We urge the retention of the provision in the proposed standards for altitudinal differences. These provisions reflect realistic values which permit uniformity and will not result in a flight of claimants to Bluefield or Beckley for testing, and requests by employers for testing at Harpers Ferry. Such a scenario would effectively destroy the standardizing purpose of these proposed regulations. The use of Charleston as a standard is appropriate in that all examinations by the O.P. Board are conducted there.

We are somewhat surprised at many of Dr. Rasmussen's comments to these proposed standards. Attached as "Appendix B" are relevant portions of Dr. Rasmussen's testimony in a Workers' Compensation case presently in litigation. Note Dr. Rasmussen's clear testimony at page 19, that there is a definite altitudinal difference between Charleston and Beckley. To this difference, Dr. Rasmussen assigns a value of 10 mm. of mercury at page 13, precisely that provided for in the proposed standards. Dr. Rasmussen further testified that the Department of Labor altitude breakdown was "... primarily done as a matter of convenience more than a matter of absolute medical difference of opinion." (Tr.

02/17/83, Claim No. 79-101957 O.P., p. 21.) Dr. Rasmussen himself indicated that "... there is quite a bit of discrepancy between, for example, sea level and 3,000 feet." (Id.) In light of such testimony, we believe that many questions are raised regarding Dr. Rasmussen's comments rendered at Beckley on May 31, 1985. Dr. Rasmussen's testimony certainly speaks for itself.

We note with interest and concern the absence of any adjustment for age in PO_2 and DLCO testing. Multiple studies have documented the effect. At page ten of "Appendix B" is a portion of a transcript from Dr. Rasmussen, in which he acknowledges the validity of this aging effect. Wagner, infra, at p. 178, indicates that in determining the normalcy of blood gas testing, the steady age-related fall in normal PO_2 must first be taken into account. See also Clausen supra, at p. 51. This holds true also for DLCO studies. Wagner, "Expired Gas Measurements", The Selective and Comprehensive Testing of Adult Pulmonary Function, Futura Publishing Co., p. 168, 1983. In light of the clear medical support for the use of an age adjustment in PO_2 and DLCO testing, we believe that a formula should be considered to take into account this effect. While 75 mm. of mercury may be normal for a 55 year old subject in Charleston, it may not be accurate for a 68 year old subject in Beckley.

It should also be pointed out that the requirement at paragraph (II) on page seven that the subject breathe room air during arterial blood gas testing is fully supported by medical

literature. Thomashefski, supra, at p. 308; American Thoracic Society Standards, supra, at p. 949.

The degree of impairment associated with a given result will, by its nature, be a source of controversy. We note that a study cited by Dr. Rasmussen in his comments (Miller and Paez, Practice of Medicine, Vol. II, chapter 37, Harper & Row, 19179) advocates a finding of severe impairment for a PO_2 of 55 mm Hg at sea level. The Commissioner's proposed regulations would associate total disability for a PO_2 result of 50 mm Hg at 600 feet above sea level. The standards in the proposed regulations are thus comparable to, and in our opinion, exceed, such recommendations.

The values in the proposed regulations also meet or exceed many of those found in literature on the topic of pulmonary impairment. Tomashefski (supra, at p. 307) equates an FEV_1 value of 40% to severe impairment. Such a figure equals total impairment under the proposed standards. Bickerman (supra, at p. 19) indicates a normal FVC of 75%. Under the proposed standards, such a percentage equates to a 15% permanent partial impairment. The proposed standards therefore, go beyond that which would be suggested by such medical authorities.

The purpose of these proposed regulations is to fairly compensate partially and totally impaired subjects. Significantly, this is not true with the Social Security Administration or the Department of Labor. Such agencies utilize a different approach geared to a different result - invoking a presumption of permanent total disability. We submit that applying

Federal standards for total disability to a partial disability based system is comparing apples and oranges.

We believe that the final paragraph of the proposed regulations at page eight, in leaving open the inquiry to other medically acceptable tests or procedures, is an additional example of the flexibility inherent in these standards to ensure that a subject's "true" impairment is determined. We do, however, question the utility of the $A\text{-}aO_2$ gradient calculations where full blood gas studies have been obtained. We believe that directly measured results are much more helpful in assessing pulmonary impairment than those which are calculated or derived from the measured variables. Such derived variables do not add any additional information that is not available from careful examination of the measured variables. Further, it is apparent that the $A\text{-}aO_2$ gradient is directly affected by the subject's age, smoking history and testing position (greater if subject is supine). (Begin and Renzetti, Alveolar-Arterial Oxygen Pressure Gradient; Respiratory Care, May, 1977; Vol. 22, No. 5.)

CONCLUSION

Our companies appreciate the opportunity to comment on these proposed standards. The proposed regulations are for the most part excellent in their coverage. Their approach will help to ensure that West Virginia will have a uniform system with predictable results and comparable testing procedures. We, therefore, respectfully urge the adoption of these proposed regulations with the appropriate revisions we have delineated.

APPENDIX "A"

WORKERS' COMPENSATION FUND

MELVIN L. JUDY,
Claimant,

vs. Claim No. 79-72829

WEST VIRGINIA DEPARTMENT OF MINES and SOUTHERN APPALACHIAN COAL COMPANY,
Employers.

Transcript of proceedings had or testimony adduced at a hearing held at the Workers' Compensation Field Office, Beckley, Raleigh County, West Virginia, on the 8th day December, 1983, pursuant to notice duly given by the Commissioner to all interested parties.

BEFORE: PAT FRAGILE, Trial Examiner.

APPEARANCES: EDWARD ATKINS, Attorney at Law, Charleston National Plaza, Charleston, West Virginia, counsel for the Claimant.

JOSEPH BEESON, Attorney at Law, P. O. Box 1791, Charleston, West Virginia, counsel for the Employer.

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I N D E X

Claimant's Witness:	Cross	Redirect	Recross
Dr. Donald L. Rasmussen	3	27 36	34

Employer's Exhibit:	Received
Exhibit No. 1; Report from St. Francis Hospital's Occupational Lung Disease Clinic, dated 5/13/83.	19

quite adequate. I've even got the print out of the three best spirometries there and, actually, they agree within 5 percent of the FVC and the FEV-1 and they actually meet the American Thoracic Society's standards and Department of Labor standards for adequacy so, actually, it's really a perfectly good FVC.

Q Is 5 percent the figure generally used within the range they should generally agree?

A Yes, to be acceptable. The best two of three spirometries, so far as the American Thoracic Society is concerned--the best two of three FVCs should be within 5 percent.

The Labor Department requires the best two of three FEV-1s to agree within 5 percent and these agree well within that range on both of the values.

Q Would you agree as a general principle, Doctor, that where spirometry is concerned, that given reproducible results the test that would be most significant would be the one showing the best results?

A Yes.

Q And in this case, I gather that the O.P. Board's

APPENDIX "B"

WORKMEN'S COMPENSATION FUND

LOT E. TACKETT,
Claimant,

vs.

BUFFALO MINING COMPANY,
Employer.

Claim No. 79-101957 O.P.
DLE: 6-5-79

Transcript of proceedings had or testimony adduced at a hearing held at the Raleigh County Bank Build in Beckley, Raleigh County, West Virginia, on the 17th day of February, 1983, pursuant to notice duly given by the Commissioner to all interested parties.

BEFORE: PAT C. FRAGILE, Trial Examiner

APPEARANCES: TIMOTHY G. LEACH, Attorney at Law,
UMWA, P.O. Box 1313,
Charleston, West Virginia,
counsel for the Claimant.

GEORGE PARTAIN, Attorney at Law,
Valentine, Wilson & Partain,
National Bank Building,
Logan, West Virginia,
counsel for the Employer.

5-21-83 Leach Partain rec'd

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2020 Kanawha Boulevard, East
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I N D E X

Claimant's Witness	Direct	Cross	Redire
Dr. Donald L. Rasmussen	3	6	27

Q Well, I'm assuming that the PCO_2 is normal, let's say, there's no factor involved.

A All right.

Q Do you accept 75 as being normal?

A [redacted] In my laboratory, 75 would be generally normal for anybody 35 or 40 or over with a PCO_2 of 40. I think in Charleston with a PCO_2 of 40, a PO$_2$ of 75 is probably below what I would anticipate the actual normal to be because of the difference in elevation and if you're dealing with a young man, I would say that would be abnormal.

Q Doctor, how would you account for the large difference between your values you got on February 21, 1974, at exercise of 64 and the value that you got in 1981 of 74 which is ten points? How would you account for that?

A Well, our level was 70.

Q No, I'm talking about--doesn't this one correspond with this one?

A No. Why should it do so?

Q Isn't that the same level of exercise?

the '81 study because the PCO_2 was increased by 3. Well, they're actually equal. The PCO was increased--no, there was actually a difference. The PCO_2 was increased to 37 and the PO_2 was only 66, so that actually they're really comparable.

Q Let me ask you this question: I'm showing you the test that was done at CAMC on February 13, 1981, and you have in front of you the one performed at your laboratory on April 24, 1981. Would you say that there's a sharp difference between those two reports?

A [redacted]

Q There's 13 points difference there, correct, from 66 to 79?

A Well, here again you've got--let me see. I've got to get my arithmetic straight here. Actually there's not all that much difference. If you had a comparable PCO_2--if this PCO_2 in Charleston were 37 at the same level of gas exchange, then this would be 75 which would b

Q So, Doctor, I take it there is a philosophical difference between you and the Board as to how to calculate these things and what they mean, is that correct?

A Well, I would not necessarily think it would be a philosophical difference. I think again, as I said, that first level of exercise of ours is normal and so is theirs. The difference, I think--I think the philosophical difference is in the amount of exercise that we feel is adequate.

Q [redacted]

A [redacted]

Q That would be a philosophical difference, wouldn't it?

A No, that is not philosophical, that's physical.

Q Maybe the language I'm using is different from your but you believe certain things should be done from a medical standpoint and they don't acce

those as being medical facts, is that correct? You disagree on those points, right?

A Yes.

Q I don't want to belabor this point, but you have cited the Board the authorities that support your beliefs at any point in the past?

A I don't know that I actually have. They're basicall common information in any textbook in terms o barometric pressure and what-have-you. That is--

Q I notice in the Federal Standard they have differences but they seem to be a broader range than you're giving us here today. Am I correct on that? They have three sets of Standards?

A [redacted]

Q They supported that though with [redacted] of testimony, didn't they, before they did that?

A Oh, yes.

Q And you testified before them?

A I didn't testify specifically on that particular point.

Q But they took a lot of testimony before they came u

with those three things?

A Oh, yes.

Q And they don't break them down, like I say, between 24 and 1,000?

A Well, they could if they really wanted to.

Q But they didn't?

A [redacted]

Q There's a difference of opinion from a medical standpoint among the medical community on that point, isn't there, Doctor?

A I would doubt if there is any difference of opinion [redacted] medical difference of opinion. I think that the philosophical difference that I have with the Board again is the amount of exercise in that they feel that 75-watt exercise level is adequate. I feel that that 75-watt exercise

APPENDIX "C"

WORKERS' COMPENSATION FUND

MELVIN L. JUDY,
Claimant,

vs. Claim No. 79-72829

WEST VIRGINIA DEPARTMENT OF MINES and SOUTHERN APPALACHIAN COAL COMPANY,
Employers.

Transcript of proceedings had or testimony adduced at a hearing held at the Workers' Compensation Field Office, Beckley, Raleigh County, West Virginia, on the 8th day December, 1983, pursuant to notice duly given by the Commissioner to all interested parties.

BEFORE: PAT FRAGILE, Trial Examiner.

APPEARANCES: EDWARD ATKINS, Attorney at Law, Charleston National Plaza, Charleston, West Virginia, counsel for the Claimant.

JOSEPH BEESON, Attorney at Law, P. O. Box 1791, Charleston, West Virginia, counsel for the Employer.

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I N D E X

that correct?

A Pretty nearly, yes.

Q You showed the exercise expected result for the pCO2 at 38 to 44. I've had other doctors use a somewhat lower figure for the pCO2. How low would the pCO2 have to go before you would consider it to be really abnormal?

A Well, it would have to get below 30 to be significant.

Q If you saw a pCO2, for instance, of 34 or 35, you wouldn't consider that to be significantly low?

A That's minimally reduced.

Q Now, you say that the expected exercise A to A gradient would be 9 to 19. In this particular case, I notice that in the varying levels of exercises the A to A gradient exceeded that. Would you consider anything above 19 in an individual of the age of Mr. Judy to be an abnormal finding?

A Yes.

Q Now, Doctor, if a series of blood gas tests were done on an individual in different laboratories and the results varied and your test, for instance, was abnormal; yet you saw another test which you concluded was a normal test, what effect might that have on your opinion?

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ROBERT F. COHEN JR.
KATHLEEN ABATE
RICHARD PAUL COHEN

P. O. BOX 846
AREA CODE 304
TELEPHONE 363-1049

June 21, 1985

Exhibit 14

Mary Martha Merritt
Commissioner
Workers' Compensation Fund
Charleston, West Virginia 25305

Re: Proposed Emergency Rules
Legislative Rule 23-1
Series I, Section 20.8
Evaluation of Impairment in Occupational
Pneumoconiosis Claims

Dear Ms. Merritt,

I am writing you as an attorney who has regularly represented claimants in occupational pneumoconiosis claims for the past ten years. I also represent claimants in Federal Black Lung and Social Security disability proceedings, and so am familiar with the standards applicable to these programs. Over the years, I have attempted to become familiar with the medical literature on evaluation of impairment from lung disease such as occupational pneumoconiosis.

In general, the standardization of testing procedures, which constitutes the greater part of your proposed rules, makes good sense. However, I believe that the evaluation of the test results in terms of a percentage of permanent partial disability, as presented in the proposed rules, is seriously flawed.

First, I must take issue with the position that because occupational pneumoconiosis is a permanent disease, the results of ventilatory function tests or blood gas studies performed in reasonably close time proximity should not fluctuate. While there is some truth to this, it is not an absolute rule. Occupational pneumoconiosis can lead to conditions such as chronic bronchitis, where test results will indeed be variable depending on the claimant's condition on a particular day. The proposed rules suggest that if the O. P. Board orders additional testing, the results of the additional testing will establish that earlier inconsistent results were unreliable or incorrect or attributable to a disease other than occupational pneumoconiosis. However, the inconsistent tests may well have been completely valid as a reflection of the claimant's impairment on that day. To discredit valid tests showing more impairment on the basis of the "tiebreaker" testing contemplated by the proposed rules is wrong. It also appears to be an attempt to circumvent the rule established in cases such as Persiani and Javins.

Section II of the proposed rules on ventilatory function tests states, "The administration of ventilatory function tests must conform to the following criteria: . . ." (emphasis added). I have no quarrel with the criteria themselves. However, I would note that some claimants

have extreme difficulty performing ventilatory fuction studies, even though they try as hard as possible. I have seen cases where the O. P. Board has recommended a percentage of impairment, even though no single set of studies was truly acceptable, when it was clear from a group of studies that the claimant was not able to perform the test and the Board could reasonably approximate the claimant's impairment. I would suggest that the phrase "must conform" in the proposed rules be modified to take account of these situations. I am not suggesting that the criteria for administration of ventilatory tests be diluted, but rather that the O.P. Board should be permitted to make a reasonable medical judgment in those cases where a claimant is unable to perform the test.

Regarding the criteria for blood gas studies, I think that the setting of a required speed and elevation for treadmill exercise (2 mph and 10% grade, or 2.5 mph and 12% grade) is arbitrary. It completely ignores the factor of oxygen uptake, which should be included in the O. P. Board's consideration. Additionally, there should be no preference for bicycle testing over treadmill testing, and the period of the exercise test should not be limited to five minutes.

More importantly however, the correction factor for elevation in the proposed rules (5 mmHg for each 1000 feet or fraction thereof) is entirely too much. As I understand the medical literature, the appropriate correction for elevation would approximate 1 mmHg per 600 feet of elevation. Thus, the standards used in the Federal Black Lung program by the Department of Labor correct for elevation by a factor of 5 mmHg for each 3000 feet. 20 CFR, Part 718, Appendix C. Likewise, the proposed new Listings of Impairment by the Social Security Administration for the Disability Insurance program correct by a factor of 5 mmHg for each 3000 feet of elevation. In contrast, the correction factor in your proposed rules is three times as great as that used by the Department of Labor or Social Security. This is a tremendous exaggeration of the effect of elevation on blood gas study results, and prejudices the cases of any claimants who are tested outside the Kanawha Valley.

Finally, I must take ussue with the proposed "Table for Impairment of Pulmonary Function" as being too strict in a number of respects:

1. In the proposed table, an FVC, FEV_1 or MVV which is 60% of predicted results in a finding of only 30% impairment. Likewise, on FEV_1/FVC of 55% results in a finding of 30% impairment. However, in the Federal Black Lung program, a claimant whose FEV_1 is 60% of predicted and who has either an FVC or MVV 60% of predicted, or an FEV_1/FVC of 55%, is considered to be totally disabled. 20 CFR 718.204(c)(1) and Appendix B.

2. The standards for evaluating blood gas studies do not take pCO_2 into consideration, thus ignoring the accepted inverse relationship between pCO_2 and pO_2.

3. In the proposed table, a pO_2 of 60 mmHg results in a finding of only 30% impairment. However, in the Federal Black Lung program, for elevations up to 3000 feet, a pO_2 of 60 mmHg represents total disability.

20 CFR 718.204(c)(2) and Appendix C.

4. In the proposed table, a pO_2 of 55 mmHg results in a finding of 40% impairment. However, in the Social Security disability program a pO_2 of 55 mmHg represents total disability. 20 CFR, Part 404. Appendix 1, Listing of Impairments, section 3.00. In the Social Security context, a pO_2 of 55 mmHg means that the claimant's respiratory impairment is so severe that he is unable to perform any gainful activity. 20 CFR 404.1525(a). This is certainly a much stricter standard of total disability than the definition of total disability under West Virginia's Workers' Compensation law. A person considered unable to perform any gainful activity by Social Security should be considered more than 40% impaired by the O. P. Board. A pO_2 of 55 mmHg should result in a finding of total disability under our state statute.

5. The proposed table makes no provision for a person with both ventilatory and gas exchage impairment. In such cases, the combined impairment is greater than either of the separate impairments standing alone. However, the proposed table would only consider the greater impairment and essentially ignore the other form of impairment, although the other impairment is an additional limiting factor in the claimant's ability to work.

6. The proposed rules do not include any consideration of the opinions of other physicians by the O. P. Board. While the proposed rules quite properly state "that the O. P. Board use all clinical history and physical findings that would enhance or detract from any percentage of impairment in the above table", provision should also be made for opinions of other physicians. A treating physician might well have a much more accurate grasp of the extent of a claimant's impairment than the O. P. Board which, after all, only sees a claimant for a single examination.

7. The proposed table, and indeed the proposed rules as a whole, makes no provision for claimants who are totally disabled under West Virginia Workers' Compensation law, as defined in cases such as Posey and Cardwell, but whose test scores do not show sufficient impairment to warrant a finding of total impairment. The values in the proposed table reflect the rather abstract notion of "whole man impairment" which correlates to ability to perform any kind of work. However, claimants of occupational pneumoconiosis benefits are not average workers, but coal miners, most of whom have worked in the mines for essentially all of their working lives. Many -- if not most -- claimants are unfitted by their work experience and training to perform other gainful employment. Thus, in many cases, if the claimant's impairment is severe enough to render him unable to perform his usual coal mine work, he should be found to be totally disabled, even though his impairment is less than total in a pure medical sense. This kind of situation is not included anywhere in the proposed rules. I would strongly urge you to write the final rules in a way so as to clearly provide that where a respiratory impairment is sufficiently severe that the claimant is unable to perform his usual

work, and where the claimant is unable to perform other work he is fitted for by work experience and training, the O. P. Board should make a finding of total impairment.

Thank you for your consideration of these comments.

Sincerely,

Robert F. Cohen Jr.

Robert F. Cohen Jr.

RFC:cat

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Exhibit 15

June 19, 1985

Mary Martha Merritt, Commissioner
Workers' Compensation Fund
601 Morris Street
Charleston, WV 25301

RE: PROPOSED RULES OF THE WORKERS' COMPENSATION COMMISSIONER

Dear Commissioner Merritt:

With respect to the promulgation of the Proposed Rules of the Workers' Compensation Commissioner regarding occupational pneumoconiosis, I am unable to attend the June 21, 1985, public hearing in Morgantown to offer oral comment with respect to those rules.

I take this means to inform you that I believe the Rules as set forth should be promulgated with the specific recommendations and changes as set forth by Joseph J. Renn, III, M.D. as more particularly set forth in his letter to you of June 13, 1985.

I work with Dr. Renn on a frequent basis with respect to pulmonary function examinations, reports and studies and find him to be an excellent physician and student of the disease of pneumoconiosis. I believe that he has the respect of the Occupational Pneumoconiosis Board and that his laboratory at the Monongalia General Hospital is one of the finest in the area.

If I can add anything further, I will be happy to consult with you or your assistants relative to the Proposed Rules. Thank you for your continued cooperation and consideration.

Very truly yours,

John P. Ball

JPB:dt

GEORGE L. ZALDIVAR, M.D., LTD.
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3100 McCORKLE AVENUE, S.E.
CHARLESTON, WEST VIRGINIA 25304

June 18, 1985

Exhibit 16

Ms. Mary Martha Merrett
Commissioner
Workers' Compensation Fund
601 Morris Street
Charleston, West Virginia 25301

Dear Ms. Merrett:

I have read the proposed regulations for Workers' Compensation Fund regarding evaluation of pneumoconiosis. I have only two comments to make. They are as follows:

In regards to the regulation contained on Page 4, Item G, the American Thoracic Society recommends that the best two FEV-1's should agree within five percent rather than the seven percent requested by the Workers' Compensation Fund regulations. It is my experience that five percent agreement is easy to reach, and it is necessary in order to assure good effort and reproducibility.

On Page 6, Item G, blood gases if they are in ice could be run within thirty minutes rather than the ten minutes required by the new regulations. The reason for allowing longer time is that if any trouble-shooting had to occur with the equipment immediately preceding running the gases, more than 10 minutes may elapse. Moreover if the equipment is in a location other than where the individual is exercising, easily more than 10 minutes will elapse. If the sample is iced properly, 30 minutes will not cause any appreciable changes in the blood gases.

Respectfully yours,

George L. Zaldivar, M.D., F.C.C.P.

GLZ:nbc

United Mine Workers of America

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UNITED MINE WORKERS' BUILDING
900 FIFTEENTH STREET, N.W.
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Exhibit 17

June 18, 1985

Mary Martha Merritt, Commissioner
West Virginia Workers' Compensation Fund
601 Morris Street
Charleston, West Virginia 25301

RE: Proposed Rules, Medical Standards for Occupational Pneumoconiosis

Dear Commissioner Merritt:

We have recently reviewed the comments of Dr. Gregory Wagner from the Marshall University School of Medicine concerning the proposed medical standards for evaluating disabilities associated with occupational pneumoconiosis.

We agree with what he said and urge you to consider his comments very carefully.

Sincerely,

James L. Weeks/cdp

James L. Weeks, Sc.D.
Deputy Director
Department of Occupational Health

cc: Dr. G. Wagner
J. Main
M. Burdiss
Dr. Kerr

Appalachian Pulmonary Laboratory, Inc.

306½ Stanaford Road
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Telephone: (304) 255-0031

D. L. Rasmussen, M.D.
Director

June 19, 1985

Exhibit 18

Mary Martha Merritt, Commissioner
Workers' Compensation Fund
P. O. Box 3151
Charleston, WV 25305

Re: Additional comments on Proposed Emergency Rules, Legislative Rule 23-1, Series 1, Sec. 20.8

Dear Commissioner Merritt:

This is a supplemental comment to my oral and written presentation given May 31, 1985 in Beckley. I wish first to confirm my objection to the blood gas standards, the proposed altitude correction and the failure to consider the P_aCO_2 in conjunction with the P_aO_2, as stated earlier.

I also believe the standards for ventilatory function are somewhat more stringent than is realistic for a Workers' Compensation system. The values for total disability listed are somewhat more restrictive than the proposed listing for disability under the Social Security Disability Program. The latter, of course, is for total disability for <u>any</u> significant gainful employment. Standards for occupations requiring relatively heavy labor should be significantly less severe. The Federal Black Lung Program has recognized this by making total disability essentially equal to 60% of the predicted FEV_1 and an FEV_1/FVC of 55%. Setting the standards for the Workers' Compensation Fund in line with the Federal guidelines would seem appropriate.

In addition, an individual with combined ventilatory and gas exchange impairments should be considered more impaired than the seperate degrees of abnormalities in ventilatory capacity or gas exchange.

There should also be consideration given for the clinical judgment of experienced Physicians and family Physicians. The proposed standards should not be absolute, but should allow for reasoned opinion.

Thank you for your consideration in this regard.

Sincerely,

D. L. Rasmussen, ~~M.~~ D.

DLR:jr

Exhibit 19

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PHYLLIS M POTTERFIELD
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June 21, 1985

RECEIVED
JUN 21 1985
W. VA. WORKERS' COMPENSATION FUND 58

Mary Martha Merritt, Commissioner
Workers' Compensation Fund
P.O. Box 3151
Charleston, WV 25322-3151

Attn: William Mitchell, Esq.

Re: Proposed Legislative
Rule 23-1, Series I,
Section 20.8
Standards for Medical Examination

Dear Commissioner:

Since its formation in the 1920s, the law firm with which I am affiliated has rendered a substantial portion of its services for businesses, both large and small, in West Virginia and surrounding states. In our capacity as counsel for these various businesses, we have become very familiar with, and are concerned with, the laws, rules and regulations under which employers do business in West Virginia, including the laws, rules and regulations governing the operations of the workers' compensation system in this state.

I respectfully suggest that the decision you will make regarding your proposed rules related to the standards for medical examinations in occupational pneumoconiosis claims will have a substantial impact upon the future of our state. We represent a number of employers doing business in West Virginia that have a vital interest in your handling of occupational pneumoconiosis claims. To the extent that your proposed rules project an image of fairness, equality, and consistency in our state's workers' compensation system, I commend you and your staff for your efforts, and support the proposal.

I have studied the proposed rules and I have examined the written comments in response thereto which have been submitted to date. I find proponents and opponents in agreement as to the need to standardize testing and evaluation procedures in the area of occupational pneumoconiosis, and to reduce those standards to writing. Only by such standardization will claimants and employers not only be treated equitably in

individual claims, but prospective claims can be evaluated by both sides with a reasonable degree of predictability as to the outcome. By returning predictability and logic to this administrative area, the volume of litigated claims will be reduced to only those justified, and the cost of litigation will be confined to truly disputed claims.

On the medical issues addressed by your proposed rules and by comments directed to your attention to date, I largely defer to the Occupational Pneumoconiosis Board and restrict my comments to broader policy questions with a legal and administrative basis. Therefore, to the end that all parties have agreed to the need for standardization in this area, I offer the following specific comments:

1. Your proposed Table for Impairment of Pulmonary Function is in my experience essentially a codification of the guidelines which the Occupational Pneumoconiosis Board has used to date in its evaluation of pulmonary testing, and is based upon sound medical authority.

2. Your proposed adjustments in the evaluation of arterial blood gas studies due to the differences in altitude among testing facilities are imperative in an attempt at standardization, and are based upon sound and undisputed medical logic and practice. The purpose of blood gas studies is to measure impairment of one's lung function in the exchange of oxygen. If one does not take into consideration altitude difference among testing facilities which can alter test results, factors other than the impairment of one's blood gas exchange are measured.

Unfortunately, it appears from the comments of several respondents that the purpose for these altitude adjustments has been misconstrued. It appears that opponents to these adjustments have viewed this effort as regional loyalty on your part, as though using Charleston as an altitude base somehow places that city in a higher status or of more importance than one's hometown. To suggest that a mean state altitude or the altitude where a claimant works would be a more logical base altitude for adjustment purposes misinterprets the purpose for the adjustment in the first place, i.e. the need to standardize test results. Charleston is the only logical choice because it is the geographic location of the Occupational Pneumoconiosis Board which evaluates claimants on your behalf. Were you and the Occupational Pneumoconiosis Board to be relocated in the future to Beckley or Morgantown or Huntington, standardization would

need to be to the altitude level of the new location. Only by such standardization can the Board compare similar types of medical evidence - "apples to apples," if you will.

3. Your proposal that the Occupational Pneumoconiosis Board be permitted to reconcile inconsistent test results by obtaining additional testing is clearly justified and obviously aimed at attempting to provide the best possible advice in rendering decisions in occupational pneumoconiosis cases. It is unfortunate that in the recent past the following undisputed medical factors have been largely ignored:

(a) That occupational pneumoconiosis is a progressive irreversible condition;

(b) That lung impairment can be caused by conditions unrelated to one's occupation; and

(c) That given an inability to determine with certainty the definitive list of potential causes of lung impairment and the extent to which that impairment can be attributed to specific causes, physicians must evaluate pulmonary testing with an eye toward the use of sound medical judgment and consideration of all factors involved in testing procedures.

Once these principles are understood and accepted, it would clarify the Occupational Pneumoconiosis Board's explanation that given two or more current valid and reliable pulmonary tests of an individual claimant which show an apparent improvement in his occupational pneumoconiosis, one must point logically to the conclusion that, since occupational pneumoconiosis cannot improve, test results which vary indicate that factors other than occupational pneumoconiosis may be contributing to test results. Under your proposed rules, the Board could confirm its suspicions that non-occupationally related causes may or may not be affecting apparent pulmonary impairment by conducting additional, closely monitored testing to determine the reliability of previous results. Just as consistent tracings are required to indicate that individual pulmonary test results are valid, repeat pulmonary tests by the Board can confirm or deny suspicions as to causes of lung impairment.

A primary purpose for administrative agencies is to provide a forum having expertise in a particular field, as opposed to a single governmental department or court attempting to be expert in all areas. Your attempts to educate claimants, employers, and other branches of government in this area as

evidenced by your placing responsibility and confidence in the specialized expertise of the Occupational Pneumoconiosis Board are to be commended.

4. To the extent that you find yourself a layman in a technical medical area I remind you of your most valuable resource in this endeavor: the Occupational Pneumoconiosis Board. You have assembled a group of physicians with individual medical expertise beyond reproach, yet with collective expertise and experience which is unsurpassable. I caution you against falling into the trap in which lawyers and judges have found themselves recently in this area in attempting to understand and simplify complex medical questions by substituting their own unrelated sense of legal logic. To the extent that the West Virginia Supreme Court appears to have followed that course does not evidence a lack of good faith or lack of legal expertise by the Court, but a misconception that legal ideals are always transferrable to disputes involving technical medical questions. I also believe that as the Court's confidence in the ability of its Workers' Compensation Commissioner and the Occupational Pneumoconiosis Board increases, the conflicts between opinions of the Court and sound medical principles will decrease.

Therefore, I recommend that you not attempt to substitute your view of the "liberality rule," your definition of occupational pneumoconiosis, or your clearly evidenced expertise in administration and policy-making into areas which go beyond those requirements and into questions which can only be answered by pulmonary specialists. I suggest instead that you place your confidence in assessing the legal ramifications of these proposed rules to your competent legal staff, the administrative and policy-making ramifications of these proposed rules rules to those of your staff designated for that purpose; and the ramifications of the medical aspects of these proposed rules to the highly qualified physicians on the Occupational Pneumoconiosis Board.

I ask further that you allow fairness and logic, which have been apparent in your administration to date, to pervade your evaluation of the proposed regulations, and not the political pressures which have created a workers' compensation system lacking at times in fairness. To date, your administration has been marked by a high degree of fairness and efficient administration. I feel confident that you will continue with the initiatives you have begun, for in the long run they will do much to improve the economy of our state, and hence the well-being of both its employees and employers.

Thank you for the opportunity to offer my comments and for your consideration of my views.

Very truly yours,

BOWLES, McDAVID, GRAFF & LOVE

Sarah E. Smith

SES:lw

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SCHOOL OF MEDICINE
Huntington, West Virginia 25701

DEPARTMENT OF FAMILY AND COMMUNITY HEALTH
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Exhibit 20

COMMENTS CONCERNING PROPOSED RULES OF THE WORKERS' COMPENSATION COMMISSIONER CONCERNING STANDARDS FOR MEDICAL EXAMINATION IN OCCUPATIONAL PNEUMOCONIOSIS CLAIMS

Submitted: June 20, 1985

By: Gregory R. Wagner, M.D.
Chief, Division of Occupational and Environmental Health
Marshall University School of Medicine

My name is Gregory Wagner. I am a physician, Board Certified in the speciality of Internal Medicine. I am Chief of the Division of Occupational and Environmental Health at Marshall University School of Medicine. In addition, I serve as the medical consultant to the Chronic Respiratory Disease Treatment Program at the Cabin Creek Medical Center in Dawes, West Virginia, where we have seen over 2,000 coal miners with varying degrees of impairment over the last seven years. It is from the perspectives of both an academician and a medical practitioner knowledgeable about pulmonary function in health and disease that I wish to comment on the proposed rules of the Workers' Compensation Commissioner concerning medical examinations in occupational pneumoconiosis claims.

I was very pleased to see the standards and recognized the considerable amount of effort that have gone into their production. In particular, I think that the effort to utilize standardized lung function testing is appropriate. Further, by making explicit the guidelines being used for impairment determination, you are permitting a necessary public and scientific scrutiny. There are a number of specific points in the rules that I would like to comment on.

My major objections to the rules concern the Table for Impairment of Pulmonary Function found on page 7. The chart appears to be constructed in a manner that fails to recognize

the degree of impairment suffered by people with moderate or severe disease and disordered measurable functions. Some specific examples:

1. In the Federal system for Black Lung benefits determination, an individual has a rebuttable presumption of total disabiltiy if their FVC and FEV1 are at or less than 60 per cent of predicted. In this table, an individual with this level of abnormality will have the test results used as an "indicator" of a 30 percent permanent partial disability or impairment. Given the adversarial nature of the compensation process, this translates into what might be called a rebuttable presumption.
2. In the Social Security Disability determination process, individuals with pneumoconioses or diffuse lung diseases who have a resting pO_2 of 55 or less are found to be totally disabled from all gainful employment. (See Attachment A) SSD standards are usually more stringent than those utilized in Workers' Compensation proceedings because of different definitions of the meaning of disability or impairment. In this case, however, an individual with a pO_2 of 55 would receive an "indication" of 40 percent impairment.

Instead of looking at these blood gas values as they relate to other disability determination procedures, let's look at them clinically. A resting blood pO_2 of 55 or below is an absolute clinical indication for the administration of supplemental oxygen for up to twenty-four hours a day.[1] Many people with pO_2 between

55 and 60 also require supplemental oxygen for up to twenty-four hours a day, and especially with exercise. It is therefore difficult to reconcile a pO_2 of 60 with an indication of only 30 percent impairment or one of 55 with only 40 per cent impairment in the same way that it is difficult to think about someone with the need to have supplemental oxygen delivered to his body working full time in an occupation for which he is qualified by experience or training.

While on the subject of blood gas testing, I am confused by the reasoning behind the so-called standardizing of test results from different labs. The method employed differs both from that utilized by the Social Security Disability Determination Section and by the Federal Black Lung Benefits Program. If any adjustment is to be done, my best recollection is that the appropriate factor is 1 mm Hg for every 600 feet of elevation--or 5mm Hg adjustment for testing over 3,000 feet. It is, in fact, difficult to understand why an effort is being made to standardize to the Charleston elevation. Clearly, if there is any adjustment to be made, it should be to the elevation where the claimant lives and works because that is where the impairment is felt.

Also, standard medical practice would involve consideration of both the pCO_2 and the pO_2 in impairment determination.

Going back to the chart and looking once again at the values from ventilatory studies, I am struck by the difficulty many

people have merely walking across a room when their vital capacity or FEV1 reaches 50 percent of average for their height and age. At this level of impairment few if any could work satisfactorily in either the mines or factories where they had been exposed to the hazards creating occupational pneumoconiosis, yet the chart takes this an indication of only 50 per cent impairment.

Looking now at the side of the chart indicating lower levels of impairment, I have another concern that requires a somewhat more academic discussion of the nature of the tests. The setting of cutoff points between what is considered no impairment and what indicates some impairment is an arbitrary process. Some people who have impairment are going to be caught on the "no impairment" side and some people who have no impairment are going to be caught on the "impairment" side no matter where the dividing point is set. No medical tests are perfect, and all produce some false positives and some false negatives. The measure of how often someone with a condition--in this case impairment--is correctly labeled as impaired is known as the sensitivity of the test at this cutoff. The measure of how often people without impairment are correctly identified is known as the specificity of the test.

Looking at one example from the table, the FEV1: according to results of a community survey where no compensation at all was involved where 1864 people were interviewed about breathing problems and then were given lung function tests, by setting the

cutoff at 80%, the test only picks up 20 per cent of people meeting clinical criteria for chronic obstructive pulmonary disease. In other words, eighty per cent of those with disease scored above this 80% cutoff--eight in ten would have been missed.[2] (See Attachment B)

The information from the study is not completely applicable to the situation under discussion today; however, the fact that the test is so insensitive points out the need for flexibility in use of any criteria adopted. In particular, I strongly support the proposed rule that considers any acceptable value to be used to indicate a degree of impairment. Different conditions caused by dust create different physiologic responses. By using multiple tests, even if they have low sensitivity, the procedure can be improved if any one abnormal test is given full weight and consideration.

One of the reasons that there is a problem in correctly identifying people who should be granted a partial disability award is that in the working population, the average level of function at the start of employment is above the general population average from which standards are derived. Many young miners and factory workers have lung function tests at 110%, 115%, or even 120% of predicted at the time that they enter the work force. They have to be healthier than average in order to get physically demanding jobs. This is a well recognized phenomenom called the healthy worker effect when epidemiologic

studies are done. What this means is that someone can lose a significant amount of lung function in the course of employment because of occupational exposures and still remain within the limits of what is considered normal in the population. Someone, for example, might drop from 120% to 80% of predicted and, according to the chart, be seen as having no impairment, even though both their efficiency at work and their ability to pursue everyday life with a vigor that was normal for them have been significantly impaired.

Similarly, I am concerned that by going at 5 or 10 percent intervals, it is difficult for an individual to demonstrate progression of problems even when their health has deteriorated.

My final comment concerning the Table for Impairment of Pulmonary Function is that test results are appropriately listed in terms of percent of predicted values. There are a variety of standard predicted values in use in lung function testing. I recommend making explicit the reference standard you propose so that this, too, can enjoy the value of public discussion.

Other concerns prompted by review of the rules include the following:

1. The majority of the rules are consistent with the American Thoracic Society statement on standardization of spirometry and DOL Standards. I would agree with adoption of standardized procedure and would like to know the rationale for deviations from ATS Standards. For example, the proposed WC rules require noseclip use; ATS recommends but does not require it. We have

found that some individuals test more accurately without the discomfort and annoyance of the clip. I would recommend comparison of the proposed rules with the ATS recommendations and careful consideration of acceptance of ATS standardization procedures where they differ. (See Attachment C)

2. The MVV is of limited utility, is uncomfortable to perform, and frequently shows considerable variation from test to test despite valid effort. Individuals with substantial impairment can end up feeling sick for hours after attempting to comply fully with MVV instructions. It is my understanding that the US Department of Labor has made the MVV optional in its impairment determination process. The failure to perform MVV to a point of an arbitrary multiple of the FEV1 is often used as an internal measure of effort adequacy despite the inadequacies of the test and is therefore, in the long run, used punitively rather than in a legitimate effort to ascertain impairment. Further, the test is sufficiently strenuous as to require substantial waiting time between efforts and thus can be somewhat cumbersome to administer, particularly three times. I therefore recommend that you explicitly make the MVV optional in the impairment determination process, and permit the submission of two MVV tracings if they are within 5 percent of each other rather than requiring three tracings.

There are two other problems I would like to address, both

related to the fact that there may be variation from test to test in an individual, what this means, and therefore how to consider the information. Any healthy person can have differences between tests from one day to another and even from one hour to another despite full compliance with test instructions. Someone with impaired pulmonary status is more likely to have day-to-day or week-to- week variation. In fact, the same dusts that create abnormal chest x-rays also create mucus hypersecretion and airways obstruction. This airways obstruction may vary, especially if the patient is taking medications, depending on dose and time and a variety of other factors. In fact, chronic lung disease is characterized by variations that we clinically call exacerbations and remissions. This is part of the life of the impaired individual with COPD and is part of what <u>is</u> permanent about their condition. It is no more rational to assume that any single best test is the indicator of permanent impairment than it is to assume that the single worse test is. In other words, it is essential to consider the universe of lung diseases and test results suffered by dust exposed people in making decisions about their permanent impairment. Further, this decision should be made on the basis of testing without medication administration, in that that is a more accurate indication of permanent physiological status so long as they are not acutely ill at the time of the testing. To

do otherwise would be analogous to putting a hearing aid on some one with noise-induced hearing loss before performing their audiogram.

Finally, the factor of the nature of the testing process should be considered in understanding test variation. What is commonplace to medical people in the lung function laboratory can be intimidating to people unfamiliar with the equipment or procedures. There must be a supportive atmosphere which recognizes the impact of this as well as understands the fact that an apprehensive hard-of-hearing impaired claimant might have some difficulty performing with the consistency that the lung fuction testing technician might wish. People have to be scheduled in intervals and treated in a manner respectful of their individual frailties that is supportive rather than suspicious.

In summary, I recommend:

1. Revise the Table for Impairment to have it reflect the extent to which an individual is unable to work or engage in normal pursuit of everyday life with chronic hypoxemia or substantially reduced FVC or FEV1.
2. Revise the adjustment for elevation which is proposed for pO_2 determination and consider pCO_2 in impairment determination.
3. Have testing procedures conform to American Thoracic Society recommendations and US Department of Labor standards.
4. Make explicit and elicit commentary on the standards for normal values.

5. Permit consideration of loss of function from a baseline level or rate of loss of lung function in impairment determination of individuals with clinical indications of impairment whose tests are within the limits of normal.
6. Make MVV testing optional and permit submission of two rather than three tracings when the test is performed.
7. Reopen the comment period so that others who, like me, were not informed directly by the Fund of these Emergency Rules but who have information which would aid you in the process of rule revision have the opportunity to contribute to your deliberations.

REFERENCES

1. Indications for oxygen administration can be found in the multiple publications from the Nocturnal Oxygen Therapy Trial and in standard medical texts. See, for example, Petty, T.L.: LongTerm Outpatient Oxygen Therapy in Advanced Chronic Obstructive Pulmonary Disease. Chest, 77:2, February, 1980 Supplement: 304
2. Higgins, MW, Keller JB: Seven measures of ventilatory lung function: population values and a comparison of their ability to discriminate between persons with and without chronic respiratory symptoms and disease, Tecumseh, Michigan. Am Rev Respir Dis. 1973; 108: 25872.

GRW/leo/#13

ATTACHMENT A

C. Arterial oxygen tension (pO_2) at rest and simultaneously determined arterial carbon dioxide tension (pCO_2) equal to, or less than, the values specified in Table III.

TABLE III

Arterial pCO_2 (mm. Hg)	AND	Arterial pO_2 equal to or less than (mm. Hg)
30 or below		65
31		64
32		63
33		62
34		61
35		60
36		59
37		58
38		57
39		56
40 or above		55

From: Disability Evaluation Under Social Security: a handbook for physicians, 1979.

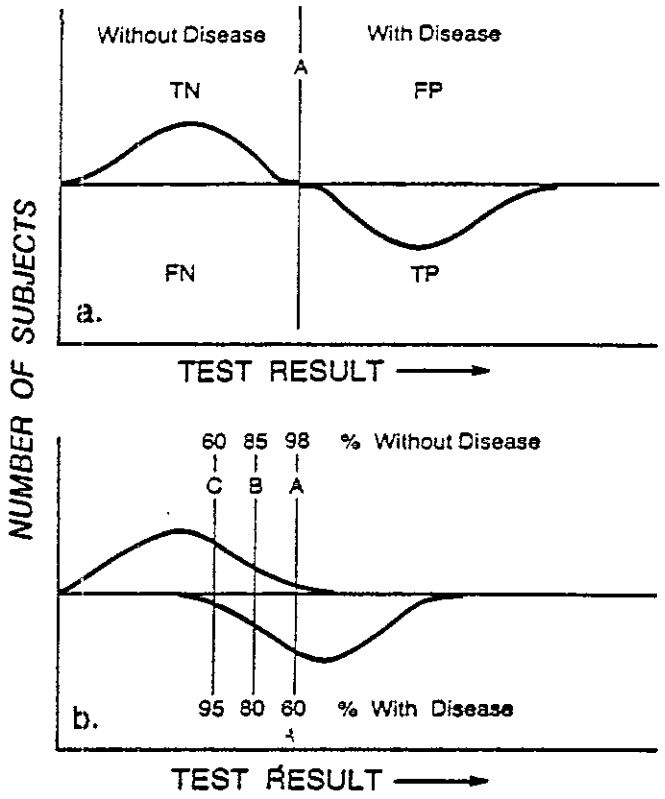

Figure 3. Hypothetical distribution of results of a) an ideal test and b) most tests used in clinical medicine. TN = true negative; FP = false positive; FN = false negative; TP = true positive.

If two or more tests are highly sensitive and the primary purpose of the test is to exclude disease, the gain in sensitivity obtained by ordering more than one (if marginal) may be offset by the increase in false-positive results.

Cutoff Points

The ideal test is one in which there is no overlap in the range of results among patients with and without a disease in question. Figure 3(a) shows a hypothetical distribution of results of such a test. All subjects without the disease have test values lower than those observed among patients with the disease. Line "A" defines the test cutoff point, above which the result is 100% sensitive and below which it is 100% specific. There are no false-negative or false-positive test results. For most tests that have a range, however, some overlap of findings is seen among those with and without the disease, as indicated in Figure 3(b). When a test is developed for clinical use and can be measured analytically, it is customary to define the normal range as being limited to 2 standard deviations from the mean. This range encompasses approximately 95% of the test results among subjects without disease. Approximately 2.5% of subjects fall either above or below this arbitrarily defined range. Line "A" indicates this cutoff point in Figure 3(b). All values that fall to the right of "A" are considered to be positive; those to the left are negative. The choice of cutoff point "A" for this hypothetical test results in high specificity, 98%, but limited sensitivity, 60%. Such a cutoff point may be appropriate to confirm a suspected diagnosis but cannot be used to screen for or to exclude disease because of its low sensitivity. To use such a test for these latter two purposes, the choice of cutoff point "C" would be appropriate since almost all patients with disease are identified (that is, sensitivity, 95%; specificity falls to 60%). Point "B" is intermediate between the two (sensitivity, 80%; specificity, 85%). Each cutoff point thus defines a set of operating characteristics for the test in question. As sensitivity is increased, specificity falls and vice versa.

To illustrate these principles, consider the following example.

Residents of Tecumseh, Michigan, were screened for the presence of chronic obstructive pulmonary disease using the forced expiratory flow volume in 1 s (FEV_1) (13). Disease was considered to be present if the person fulfilled the American Lung Association criteria of having a productive cough for 3 months of the year for 2 consecutive years. A positive (reduced) FEV_1 was arbitrarily defined as a value of less than 80% of the predicted normal based on age, sex, and armspan. Of 1864 persons investigated, 321 fulfilled the clinical criteria for obstructive disease. The FEV_1 testing procedure was carried out in all 1864 subjects. The results are indicated in Figure 4.

Using the criterion indicated for a positive test, the FEV_1 is a poor test to screen for the presence of disease because of its unacceptably low sensitivity (20%). Because of its high specificity, however, this criterion is quite adequate to confirm the presence of suspected disease. The test's sensitivity could be improved by relaxing the requirement for a positive test (that is, by defining a positive test as less than 90% of the predicted value). The specificity would decrease, resulting in a larger number of patients falsely identified as having chronic obstructive pulmonary disease. However, since the purpose of the test is to screen for the presence of disease, the reduction in specificity might be acceptable particularly if no alternative test is available with superior operating characteristics. This example shows how a given test might be found useful both to screen (or to rule out) as well as to confirm the presence of a suspected diagnosis by changing the criteria for a positive test according to the specific purpose for which the test is to be used.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

FEV_1	Present	Absent	Total
< 80%	65 (TP)	134 (FP)	199
≥ 80%	256 (FN)	1409 (TN)	1665
Total	321	1543	1864

$$\text{Sensitivity} = \frac{65}{65 + 256} = 20\% \qquad \text{Specificity} = \frac{1409}{1409 + 134} = 91\%$$

Figure 4. Operating characteristics of the forced expiratory flow volume (FEV_1) in patients with and without chronic obstructive pulmonary disease. TP = true positive; FP = false positive; FN = false negative; TN = true negative.

Summary

Few tests are perfect. Usually there is an overlap of results among patients with and without a specific disease. Each point along the distribution of results that overlap defines a set of operating characteristics for the test. As the point used to define an abnormal result (cutoff point) is moved in the direction of patients with disease, specificity increases but sensitivity decreases. As it is moved in the direction of patients without disease, the reverse is true.

Some tests may be used both to exclude or to confirm disease by altering the criteria for a positive test according to the purpose of the test.

Receiver Operator Characteristic Analysis

A graph can be constructed that correlates true-and false-positive rates (sensitivity and 1 minus specificity, respectively) for a series of cutoff points for any test. Such a graph is known as the Receiver Operator Characteristic of a test. The graph can be used to decide the optimum cutoff point according to the purpose of the test. In addition, when two or more tests are available to pursue a diagnostic consideration, a comparison of the Receiver Operator Characteristics of each will often show where one has an advantage over the other. Consider the relative merits of computerized tomography and radionuclide scanning for the detection of brain tumor as assessed by Swets and associates (14). Receiver Operator Characteristic curves for computerized tomography and radionuclide scanning are indicated in Figure 5. The upper line represents the Receiver Operator Characteristic curve for computerized tomography and the lower for radionuclide scanning. As the criteria for a positive scan are made more stringent, the curves move to the left and down (greater specificity, lower sensitivity). If the purpose of the test is to confirm a strong clinical suspicion, these stringent criteria would be appropriate. Conversely,

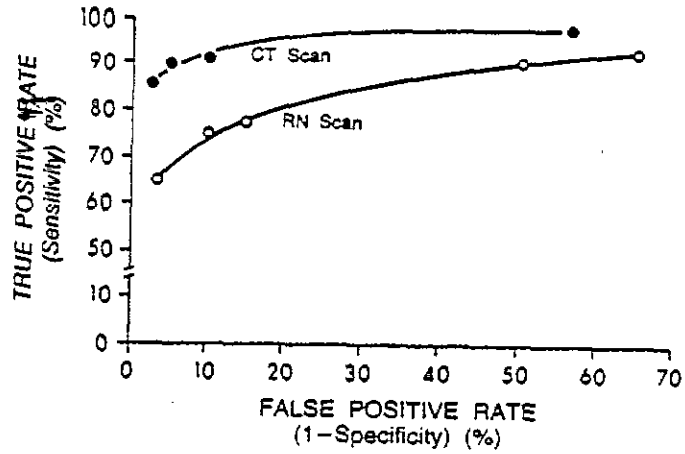

Figure 5. Receiver operator characteristic of computerized tomography (*CT*) and radionuclide scanning (*RN*) for detection of brain tumor. (Data from Swets JA, Pickett RM, Whitehead SF, et al. Assessment of diagnostic technologies. *Science.* 1979;205:753-9.)

as the criteria for a positive scan are made more liberal, the curves move to the right and up (greater sensitivity, lower specificity). If the purpose of the test is to exclude tumor, the more liberal criteria would be appropriate.

A comparison of the two curves also shows that regardless of the purpose of the test, computerized tomography is superior to radionuclide scanning. At a sensitivity of 90%, for example, the false-positive rates for computerized tomography and radionuclide scanning are 5% and 50% respectively. Likewise, at a false-positive rate of 10% (specificity, 90%), the comparative sensitivities are 91% and 75% respectively.

Such comparisons may assist the physician in deciding on the optimum test for a particular purpose. It should be obvious, however, that other factors, including patient risk and cost, may influence the decision for one test over another.

ATTACHMENT C

Standardization of Spirometry

Statement

American Thoracic Society

Medical Section of the American Lung Association

Reprinted from AMERICAN REVIEW OF RESPIRATORY DISEASE
Vol. 119, No. 5, May 1979

Editorial

Standardization of Spirometry

Since 1939, when the American Thoracic Society opened its membership to physicians interested in all respiratory diseases rather than tuberculosis only, the society has been dedicated to the collection, interpretation, and dissemination of scientific information concerning *all* aspects of respiratory disease. Its capability to fulfill this scientific purpose was greatly expanded in 1971 by opening membership to highly qualified, nonphysician health professionals active in research and teaching. The periodic publication of authoritative statements by ATS committees in the AMERICAN REVIEW OF RESPIRATORY DISEASE has implemented this purpose. The composition of such committees has not been limited to ATS members but has included nonmember consultants with excellent qualifications in the subject matter of the proposed statements. The statement on Standardization of Spirometry by the ATS Medical Devices Committee, which appears elsewhere in this issue, is a product of the collaboration of professionals in pulmonary, occupational, and environmental medicine, as well as in engineering, biophysics, and computer sciences.

Our society should recognize that by recommending standards for medical devices it is entering a new field. Such statements may have much broader impact than previous ones, which dealt primarily with the diagnosis, management, and prevention of respiratory diseases. It is evident already that such standards may be used by governmental regulatory agencies (1). An obvious corollary is that therefore they also will be of intense interest to medical device manufacturers. Thus, the ATS may find itself in an unfamiliar position between industry and government, with all of the legal and political ramifications implicit in such a role. Such considerations should not deter the ATS from fulfilling its major goal of insuring the highest possible quality of medical care for patients with respiratory diseases, but they do require that the society publish such statements only after careful critical review by broadly representative individuals and groups. In this regard, the statement on Standardization of Spirometry has been the most thoroughly reviewed statement ever published by the ATS. Its formulation was almost two years in development, with direct involvement by the Association for the Advancement of Medical Instrumentation (AAMI), the American College of Chest Physicians (ACCP), the National Heart, Lung, and Blood Institute (NHLBI), the National Institute of Occupational Safety and Health (NIOSH), and the Division of Medical Device Standards of the U.S. Food and Drug Administration (FDA). In addition, the proposed standards were presented at the Annual Meeting of the ATS in May 1977 and at the Annual Meeting of the ACCP in October 1977; they were published in the *ATS News*, a publication sent to more than 7,000 ATS members in 70 countries, with a request that objections or suggestions for change be sent to the Medical Devices Committee (2). Further, three committee members tested 19 commercially available spirometric devices with both a mechanical simulator and human subject data before the final recommendations for standards were formulated.

It must be emphasized that the instrument specifications outlined in the statement, are *minimum* recommendations. It would be advisable for all users and manufacturers to upgrade their spirometers if they do not meet these requirements. The requirements *are met* by most currently available spirometers, and several that are priced at less than $1,000 would serve adequately as office spirometers. This is an important consideration if we are to succeed in convincing medical practitioners that a spirometer in the office is just as important as an ECG machine!

The spirometer recommendations presented in the ATS statement are intended to apply to *all spirometers*. These instrumentation standards will provide accurate pulmonary function data that are suitable not only for diagnostic purposes but also for comparison from one laboratory to another, from one time period to another, and for epidemiologic studies.

I believe that the statement on Standardization of Spirometry will stand as one of the outstanding accomplishments of the ATS, and it will become widely used not only in clinical practice but also by industry, governmental agencies, and other organizations involved with respiratory health and disease.

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1. Hopewell, P. C.: Regulation of medical devices—A progress report. ATS News, 1978, *4*(2), 4.
2. Gardner, R.: Report of Snowbird Workshop on Standardization of Spirometry. ATS News, 1977, *3*(3), 20–25.

ATS Statement—Snowbird Workshop on Standardization of Spirometry

AMERICAN THORACIC SOCIETY, medical section of American Lung Association

THIS IS AN OFFICIAL STATEMENT OF ATS ADOPTED BY COUNCIL, MAY 1979

Chairman's Comment

The following report is a result of considerable effort and thought. In June 1976, the Medical Devices Committee of the American Thoracic Society prepared a rough draft of proposed standards for spirometry. As a follow-up to this, funds were obtained from ATS, National Heart Lung and Blood Institute Contract No. 1-HR-5-8028 (Standardization in Epidemiological Studies), and a workshop was scheduled with the cooperation and participation of Dr. Hans Weill, then president of ATS. The following recommendations are the outcome of the two-day workshop (January 18–19, 1977) held at Snowbird, Utah. Since then, there has been feedback from workshops members and input from manufacturers and users after presentation of material at the ATS Annual Meeting in May 1977 and the ATS News in the summer of 1977. The document was circulated to the Snowbird workshop members in April 1978 and presented to the ATS Council at its annual meeting in Boston in May 1978. Following this meeting, changes were made and workshop members were polled for approval. The workshop had representation from clinical and the epidemiologic areas. Since the document was approved by consensus of the 22 scientists present, these standards are proposed for clinical and epidemiologic studies.

The instrument specifications are *minimum recommendations*. Any manufacturer making an instrument should at least meet these specifications. However, there are several specifications where improvements would be desirable and welcomed.

The instrument specifications are summarized in table 1. Each pulmonary function test is listed individually so it can be applied to devices independently. It is not necessary for a "spirometer" to perform all of the tests. For example, an instrument may only be appropriate for measuring VC: therefore, it would only be required to meet the VC standard.

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APPENDIX A

HANKINSON, J.L., AND PETERSEN, M.R.: DATA ANALYSIS FOR SPIROMETRY INSTRUMENTATION STANDARDS (ABSTRACT), AM REV RESPIR DIS, 1977, *115* (SUPPLEMENT, p. 116)

TABLE 1

OCCURRENCES OF FVC

Range	Number	Percentage
FVC ≤ 5.25	5,835	62.43%
5.25 < FVC ≤ 5.75	1,732	18.53%
5.75 < FVC ≤ 6.25	1,035	11.07%
6.25 < FVC ≤ 6.75	491	5.25%
6.75 < FVC ≤ 7.25	184	1.97%
7.25 < FVC ≤ 7.75	66	0.71%
7.75 < FVC	4	0.04%
Total	9,347	100.00%

TABLE 2

OCCURRENCES OF PEAK FLOW

Range	Number	Percentage
PKF ≤ 10.25	7,105	76.01%
10.25 < PKF ≤ 10.75	611	6.54%
10.75 < PKF ≤ 11.25	485	5.19%
11.25 < PKF ≤ 11.75	358	3.83%
11.75 < PKF ≤ 12.25	279	2.99%
12.25 < PKF ≤ 12.75	191	2.04%
12.75 < PKF ≤ 13.25	147	1.57%
13.25 < PKF ≤ 13.75	100	1.07%
13.75 < PKF ≤ 14.25	37	0.40%
142.5 < PKF	34	0.36%
Total	9,347	100.00%

Rationale

Based on Hankinson and Petersen's data (Tables 1–4 Appendix A) (2), on 9,347 working coal miners, the range for volume and flow were established. Ninety-seven per cent of the miners had a forced vital capacity of less than 7.25 liter and 97 per cent had a peak flow of less than 13.25 liter per sec. If the spirometer is used for inspiration and expiration, a volume capacity of greater than 7 liter will be necessary. The volume requirement of 7 liter also applies to children. The work of Dickman and associates (3), Schmidt and coworkers (4), and Knudson and associates (5) demonstrate this need. In addition, there was concurrence of workshop participants representing pediatric interests. Older men and women have volumes similar to those of children (3–5). A 7-liter spirometer will not measure the person with "super" lungs, but it will cover the majority of the population. Accuracy of ± 3 per cent of reading or ± 50 ml, whichever is greater, is based on the data of Hankinson and Petersen (2). Their data showed coefficient of variation on the same subject on different days of 3 per cent or less. (Table 3 Appendix A) These data have been substantiated by Glindmeyer and others (6, 25). The instruments must be capable of measuring flows in the range of 0 to 12 liter per sec. The 12 liter per sec maximal flow rate selection was determined from Hankinson and Petersen's data (2), which show that less than 4.5 per cent of the population have flow rates greater than 12 liter per sec. (table 2, Appendix A) The volume accuracy is required on either flow or volume measuring instruments to be ± 3 per cent of reading or ± 50 ml, whichever is greater.

TABLE 3

VARIABILITY OF FVC, FEV_1, FEF_{50} FOR MULTIPLE TESTS ON THE SAME SUBJECT OVER A 1 TO 2 YEAR PERIOD

	Mean	Standard Error of the Estimate	Coefficient of Variation	N	Total
		FVC			
Males	5.45	0.116	2.13%	13	150
Females	3.89	0.117	3.00%	7	81
		FEV_1			
Males	4.28	0.099	2.31%	13	150
Females	3.40	0.125	3.68%	7	81
		FEF_{50}			
Males	4.43	0.109	4.72%	13	111
Females	4.26	0.336	7.89%	5	48

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Spirometers need not perform all tests, but the tests they are advertised to measure should meet the following as a minimum. Definitions are taken from a report of the ACCP-ATS Joint Committee on Pulmonary Nomenclature (1).

Test Title

Vital Capacity (VC)

Definition

The maximal volume of air exhaled from the point of maximal inspiration.

Standard

If an instrument claims to measure VC, it should continue to accumulate volume for at least 30 sec. The instrument should be capable of measuring volumes of at least 7 liter (BTPS) independent of flow rate for flows between 0 and 12 liter per sec. Accuracy required is at least ± 3 per cent of reading or ± 50 ml, whichever is greater.

TABLE 1

MINIMAL SPIROMETRY STANDARDS SUMMARY

Test	Range/Accuracy BTPS (liter)	Flow Range (liter/sec)	Time (sec)	Start Point	Resistance and Back Pressure	Test Signals
VC	7 liter/± 3% of reading or 50 ml, whichever is greater	0— 12	30	–		Calibrated Syringe
FVC	7 liter/± 3% of reading or 50 ml, whichever is greater	0— 12	10.0	–		2 simulated FVC signals in range (1) FVC = 5 liter τ = 0.4 sec (2) FVC = liter τ = 2.4 sec
FEV_t	7 liter/± 3% of reading	0— 12	t	Back extrapolate or equivalent	Less than 1.5 cm H_2O liter/sec at 12.0 liter/sec flow	Same as FVC
FEV_1			1.0			
FEF 25–75%	7 liter/± 5% of reading or 0.1 liter/sec, whichever is greater	0— 12	10.0	–	Same as FEV_t	Same as FVC
$\dot{V}$	12 liter/sec/± 5% of reading or 0.2 liter/sec, whichever is greater	0— 12	10.0	–	Same as FEV_t	Manufacturer proof
MVV	Sine wave 250 liter/min @ 2 liter to ± 5% of reading	0—12 ± 5%	12–15 ± 3%	–	Pressure less than ± 10 cm H_2O @ 2 liter TV 2.0 Hz	Sine wave pump 0— 4 Hz ± 10% @ ± 12 liter/sec

Definition

Self-explanatory. Formerly called the maximal mid-expiratory flow rate (MMEF).

Standard

The $FEF_{25-75\%}$ should be measured on a system with at least a 7-liter capacity with flow in the range of 0 to 12 liter per sec and the capability of recording volume for at least 10 sec. The $FEF_{25-75\%}$ has an accuracy requirement of ± 5 per cent of reading or ± 100 ml per sec, whichever is greater.

Rationale

This test result has a much larger patient standard deviation from FVC or FEV_1 because 2 measurements of volume and time are required.

Test Signal

The test signal for $FEF_{25-75\%}$ is the same as that used for FVC and FEV_1.

Test Title

Flow ($\dot{V}$)

Definition

Instantaneous forced expiratory flow.

Standard

Flow may be measured electronically or graphically. Where flow-volume loops or other uses of flow are made, with flow in the range of 0 to 12 liter per sec, the flow should be within ± 5 per cent of reading or ± 0.2 liter per sec, whichever is greater. The time interval available for the test should be at least 10 sec.

Rationale

Flow signals are sometimes the primary signal used to make volume measurements (by integration). They are usually less accurate than volume measurements and are much more difficult to calibrate. Other instruments differentiate volume signals to get flow. With the "noise," phase-shift, and associated problems, flows accurate to within ± 5 per cent were believed to be adequate. Whenever a flow transducer is integrated to measure volume, it is the volume requirement that should be accurate to within ± 3 per cent of reading or 50 ml, whichever is greater.

Test Signal

"Exponential" signals specified for the FVC and FEV_1 testing are the suggested signals. Proof of the qualification of the instrument to this standard will require proof by the manufacturer until standard testing procedures can be designed. Instruments having $\dot{V}$ capability will require the instrument to be so labeled.

Test Title

Maximal Voluntary Ventilation (MVV)

Definition

The volume of air expired in a specified period during repetitive maximal respiratory effort.

Standard

When a spirometer is used for measuring MVV it should have a response that is flat within ± 10 per cent up to 4 Hz at flow rates of up to 12 liters per sec over the volume range. (See Test Signal and table 1.) The time for exhaled volume integration or recording should be no less than 12 or more than 15 sec. The indicated time should be accurate to within ± 3 per cent.

Rationale

For the MVV maneuver, the frequency content of the volume-time signal is high (15, 16) and, therefore, results are instrument dependent (17–19). The listed references give the rationale for this standard.

Test Signal

When tested with a pump producing a sinusoidal waveform, the indicated response of the instrument in incrementally increased flow up to 250 liter per min signal, produced with stroke volumes up to 2 liter, should be accurate within ± 5 per cent of reading. During the testing the pressure at the mouthpiece should not exceed ± 10 cm H_2O. For volume spirometers these requirements apply throughout the volume range.

Recorders

Diagnostic spirometry requires a graphic recording. In only two applications recorders are not required but are highly recommended. (*1*) For screening purposes; if the screening spirometry is abnormal, a recorded diagnostic spirometry should be made. (*2*) For follow-up studies requiring limited information for patients who have already had a diagnostic spirometry. In these applications it is permissible to use devices that meet the minimal requirements specified previously but do not produce a hard copy graphic record.

TABLE 4

EXPIRATORY TIME IN SECONDS (FETX%)
TOTAL POPULATION N = 1,222 COAL MINERS

	FET90%	FET95%	FET100%
Mean	2.29	3.61	6.87
Standard Deviation	1.39	2.13	3.72

Subjects with Obstruction ($FEV_1/FVC < 70\%$)
N = 205

	FET90%	FET95%	FET100%
Mean	4.45	6.50	10.21
Standard Deviation	1.76	2.57	4.24

Test Signal

The test signal for VC will be a calibrated syringe with a volume of at least 3 liter or a suitably calibrated spirometer tested over the volume range of the instrument.

Test Title

Forced Vital Capacity (FVC)

Definition

Vital capacity performed with a maximally forced expiratory effort.

Standard

The spirometer should be capable of measuring volumes up to at least 7 liter (BTPS) independent of flow rate for flows between 0 and 12 liter per sec. The instrument should be capable of accumulating volume for at least 10 sec. The instrument should accumulate all of the expired volume for at least ± 3 per cent of reading or ± 50 ml, whichever is greater. The volume accuracy requirement is the primary determinant of the flow accuracy. "End of test" will occur when the average flow over a 0.5-second interval is less than 50 ml per sec or when the volume change in a 0.5-second interval is less than 25 ml.

Rationale

For the FVC test, the volume and flow requirements are the same as for the VC (2–6). Hankinson and Petersen (2) have shown that FVC maneuvers must be recorded for at least 10 sec if 94 per cent of 205 subjects with obstructive lung disease are to be correctly classified (table 4, Appendix A). (Airway obstruction is defined as FEV_1/FVC ratio less than 70 per cent.)

Test Signal

The FVC will be simulated by "exponential" volume-time curves. The first simulated exhalation will have an FVC of 5 liter and a time constant of 0.4 sec (peak flow, 12.5 liter per sec). The second will have an FVC of 3.5 liter and a time constant of 2.4 sec (peak flow, 1.46 liter per sec).

Test Title

Timed Forced Expiratory Volume (FEV_t)

Definition

The volume of air exhaled in the specified time during the performance of the FVC, e.g., FEV_1 for the volume of air exhaled during the first sec of FVC.

Standard

The FEV_t will require a spirometer having a volume of at least 7 liter and a volume accuracy of at least ± 3 per cent of reading or ± 50 ml, whichever is greater over the flow range of 0 to 12 liter per sec. The instrument should measure the FEV_1 within an accuracy of at least ± 3 per cent of reading or ± 50 ml, whichever is greater. Because most instruments will also measure FVC and FEV_1/FVC ratios, they should be capable of accumulating volume for at least 10 sec. The "start of test" for purposes of timing will be determined by the back extrapolation method (7, 8) or a method shown to be equivalent. The resistance to air flow at 12.0 liter per sec should be less than 1.5 cm H_2O per liter per sec.

Rationale

FEV_t measurement is influenced by the point selected as the start of the test. A uniform method of selecting the point is required to maintain consistency. The back extrapolation (7, 8) method is the most consistent and accepted method (see section on measurement standardization which follows) and should be used until other methods are demonstrated to give equivalent results. Flow resistance is important in determining the FEV_1 and other timed expirations (9–14).

Test Signal

The test signal for FEV_t is the same as that used for FVC.

Test Title

Mean Forced Expiratory Flow during the middle half of the FVC ($FEF_{25-75\%}$)

and that the tests provide an accurate reflection of the subject's pulmonary function. This conclusion was achieved after reviewing the data of Knudson and associates (Appendix B, table 1) (20) and others (7, 21). There is no need to obtain more than 3 acceptable tests.

Nose Clips

Nose clips are recommended but not required.

Rationale

Although the use of nose clips does not appreciably influence the FVC performed using the open circuit technique, some subjects breathe through the nose during testing when a closed circuit technique is used. However, it was agreed that although nose clips are recommended, they are not required to maintain a standard method of testing.

Sitting versus Standing

Adult subjects may be studied in the sitting or standing position. No indication of position is necessary. In children under the age of 12, the position should be indicated.

Rationale

Pierson and co-workers (22) indicate that no clinically significant differences exist between spirometric data from sitting and standing subjects. Unpublished data (R. Lemen) indicate that in children, VC is greater in the standing than in the sitting position.

Measurement

Spirometric variables should be measured from a series of at least 3 acceptable forced expiratory curves. The maximal FVC and the maximal FEV_1 (BTPS) will be recorded, after examining the data from all of the acceptable curves, even if the two values do not come from the same curve. If the $FEF_{25-75\%}$ and/or the instantaneous maximum expiratory flows ($\dot{V}$) are obtained from a single test, the test used will be the one with the greatest sum of FEV_1 and FVC (7).

Rationale

Best efforts cannot be determined by simple inspection of a spirogram. Measurements and calculation are required to determine the largest values. There is rarely a significant difference between the largest values and the mean values in normal subjects. However, independently selecting the largest value for FVC and FEV_1 accounts for the occasional influence of learning and possible deterioration in performance due to fatigue or induced bronchospasm. There is no need to discard the best FEV_1 even if the maneuver is prematurely terminated. $FEF_{25-75\%}$ will be influenced by the FVC of the curve from which it is determined. Spuriously high values may be reported if obtained from maneuvers with lower FVC. Summing the FEV_1 and FVC provides an objective and simple method of defining the "best" curve (7).

Clinical/Epidemiologic Considerations

The issue of clinical versus epidemiologic considerations for test selection and test recording was discussed. There were major agreements but some minor disagreements about test selection and when and how testing should be averaged. In the vast majority of the cases the instrument requirements, testing procedures, and numbers of tests required were agreed to by both the clinical and the epidemiologic participants.

Technician Training

The critical importance of training of pulmonary technicians was discussed at length. It was decided that it is best to provide proper supervision and not certification. Cost factors mitigate against certification, which of itself does not ensure quality. It was recommended that ALA/ATS follow up on development of training criteria and call upon lung associations and chapters to identify qualified and accessible training sites. A related concern is that many physicians supervising pulmonary function laboratories in community hospitals are not adequately prepared. These needs should be included as a consideration in the ALA/ATS hospital consultation program. It was almost unanimously agreed that the manufacturers are not providing proper training in the use of spirometric equipment and that the need for hands-on live patient capabilities was of crucial importance in training. Therefore, in the foreseeable future the workshop did not expect that manufacturers would be able to meet training needs.

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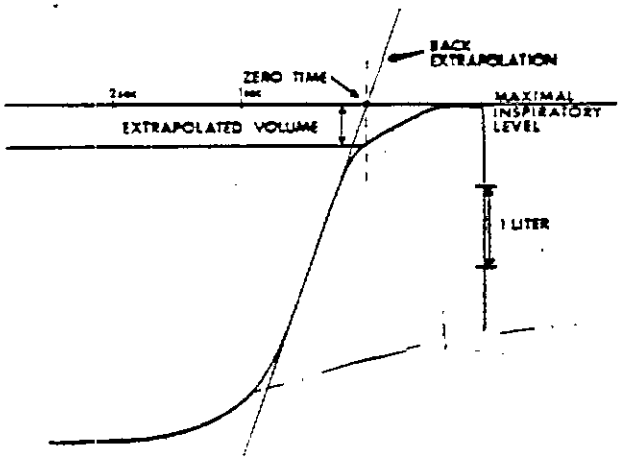

Fig. 1. Extrapolated volume.

Recorder Requirements

The device used to record FVC and FEV_1 should provide at least a tracing of volume-time or volume-flow during the entire forced expiration. For the volume-time tracing the recorder must be capable of displaying the entire FVC maneuver, at a constant speed, from maximum inspiration for at least 10 seconds after the start of the maneuver. (The tracing must be stored and available for recall.) If a paper record is made it must have at least the following characteristics: Paper speed, at least 2 cm per sec; higher speeds are preferred. Volume sensitivity, at least 10.0 mm of chart per liter of volume. (BTPS) Flow sensitivity, at least 4.0 mm of chart per liter per sec of flow (BTP).

Rationale

Spirograms still represent the best method of ensuring that this "effort-dependent" test is properly performed. Most forced vital capacity spirometric analysis is made from a volume-time tracing; to determine the quality of the start of the FVC test and achieve reliable results by back extrapolation to determine time zero, the recorder should be up to speed before forced expiration is begun. (See figure 1 and associated discussion below). The ten second record requirement is based on the data presented earlier (2) and shown in Appendix A table 4. The requirements for chart speed and volume sensitivity are based on earlier recommendations (9, 24) and the need to have adequate visual resolution on the record. Whatever methods are used, techniques need to be developed that (*1*) minimize patient time, (*2*) minimize technician effort and cost, (*3*) provide for comparison and consistency between laboratories, and (*4*) do not throw away important information.

Standards for Forced Vital Capacity Measurement

Instrumentation

Diagnostic spirometry should be performed with a spirometer that meets the technical specifications of the American Thoracic Society as outlined above. Workshop participants agreed that the spirometer specifications should apply to *all diagnostic spirometers* whether used for clinical, diagnostic, or epidemiologic purposes.

Rationale

Instrumentation standards should be met to provide accurate spirometric data and information that is comparable from laboratory to laboratory and from one time period to another.

Standard Methods for Test Performance

Subjects will be instructed in the FVC maneuver, and the appropriate technique will be demonstrated. A minimum of 3 acceptable FVC maneuvers will be performed. Acceptability will be determined by the technician's observation that the subject understood the instructions and performed the test with a smooth continuous exhalation, with apparent maximal effort, with a good start, and without (*1*) Coughing, (*2*) Valsalva maneuver (glottis closure). (*3*) Early termination of expiration. (In a normal patient this would be before completion of the breath; in an obstructed patient this would be assumed to have taken place if the expiratory time was less than 5 sec.) (*4*) A leak. (*5*) An obstructed mouthpiece (obstruction due to the tongue being placed in front of the mouthpiece, false teeth falling in front of the mouthpiece, etc.). (*6*) An unsatisfactory start of expiration, characterized by excessive hesitation or false starts. Unsatisfactory starts prevent accurate back extrapolation and determination of time zero. To achieve accurate time zero the extrapolated volume on the volume time tracing-spirogram—should be less than 10 per cent of the FVC or 100 ml whichever is greater. (See figure 1 for definition of extrapolated volume). (*7*) An excessive variability among the 3 acceptable curves. The 2 best of the 3 acceptable curves should not vary by more than ± 5 per cent of reading or ± 100 ml, whichever is greater.

Rationale

At least 3 acceptable tests are required to ensure that maximal effort and cooperation are obtained

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APPENDIX B

KNUDSON, R.J., SLATEN, R.C., LEBOWITZ, M.D., AND BURROWS, B.:
THE MAXIMAL EXPIRATORY FLOW VOLUME CURVE. NORMAL STANDARDS,
VARIABILITY, AND EFFECTS OF AGE, AM REV RESPIR DIS, 1976, *113*, 871

TABLE 1

COMPARISON OF THE BEST OF THE FIRST 3 WITH THE BEST OF 5 TESTS
(APPROXIMATELY 3,000 PEOPLE)

	Year 1	Year 2
They were identical in:	63.1%	67%
They were within 5% of each other in:	90.1%	93.9%
Thus, the best occurred in the last 2 in:		
(*but in only 25% were differences greater than 25 ml)	37%*	33%
When the best FEV_1 occurred in the last 2 tests, it was at least 5% greater than the best of the first 3 in:	9.9%	6.1%
When the best FEV_1 occurred in the last 2 tests, it was at least 10% greater than the best of the first 3 in:	2.7%	1.7%

DON M. STACY
ATTORNEY AT LAW

304-255-6566 • 223½ PRINCE STREET • P.O. BOX AS • BECKLEY, WEST VIRGINIA 25802-2841

Exhibit 21

June 21, 1985

Mary Martha Merritt, Commissioner
Workers' Compensation Fund
601 Morris Street
Charleston, West Virginia 25301

To The Honorable Commissioner Merritt:

COMMENTS ON PROPOSED EMERGENCY RULES
LEGISLATIVE RULE 23-1, SERIES 1, SEC. 20.8

This is to serve as comments to the Proposed Emergency Rules, Legislative Rule 23-1, Series 1, Sec. 20.8 which apply to occupational pneumoconiosis claims. The effect of these standards is to defeat the purpose of the Workers' Compensation Act and, if adopted, will deprive claimants of their entitlement to benefits.

The Standards for Medical Examination state that the Commissioner at the request of the Occupational Pneumoconiosis Board may direct the parties to furnish additional evidence and/or additional testing at the laboratory utilized by the Occupational Pneumoconiosis Board or other laboratories when the results of ventilatory and arterial blood gas testing conflict. Such a requirement was not contemplated by the Supreme Court when it directed the Occupational Pneumoconiosis Board to formulate standards. This provision, if adopted, will require a claimant to prove that the impairment demonstrated by pulmonary function testing is due to pneumoconiosis if the employer produces conflicting test results. Such a regulation creates a presumption that the employer's test results are of greater weight than the claimant's evidence. The Supreme Court created a presumption that the claimant's results are due to pneumoconiosis and the burden shifts to the employer to prove that the claimant's results are due to some condition other than pneumoconiosis. Javins, et. al. v. Workers' Compensation Commissioner, (June 27, 1984). The above referenced regulation overrules the principles set forth in Javins.

In regular injury claims under Workers' Compensation, the evidence is commonly conflicting as to the degree of permanent partial disability attributable to a compensable injury. The evidence is conflicting as to the physical examination findings of equally qualified physicians. In resolving such conflicts, the claimant must be given a liberal construction of the evidence. Myers v. State Workmen's Compensation Commissioner, W.Va., 239 S.E. 2d 124, 126 (1977); Workman v. State Workmen's Compensation Commissioner, W.Va., 236 S.E. 2d 236, 238 (1977); Sisk v. State Workmen's Compensation Commissioner, 153 W.Va. 461, 170 S.E. 2d 20 (1969); Fulk v. State Workmen's Compensation Commissioner, 112 W.Va. 555, 166 S.E. 2d 5 (1932).

If the proposed Standards for Medical Examination are adopted, conflicting evidence will be resolved in favor of the employer. Conflicting evidence is inherent in Workers' Compensation claims and the Supreme Court has made it clear what standard applies in such cases. The Workers' Compensation Commissioner cannot adopt standards which are in direct conflict with liberality rule. Where the claimant presents reliable medical evidence as to his pulmonary impairment the employer must prove that such evidence is unreliable. Persiana v. State Workmen's Compensation Commissioner, W.Va., 248 S.E. 2d 844 (W.Va. 1978). Such regulation also conflicts in West Virginia Code, Chapter 23, Article 4, Section 8c(b).

The Arterial Blood Gas Studies, Section (I) provide that exercise must be performed by having the claimant pedal a bicycle at 75 watts. First, there is no reason for requiring the claimant to be exercised on a bicycle as opposed to a treadmill. In my personal experience, I have represented many claimants who have never riden a bicycle. Due to their unfamiliarty with the operation of the bicycle, such claimant has difficulty completing the test. There is no medical reason for favoring exercise by bicycle over that of a treadmill. All pulmonary function laboratories in Beckley, West Virginia use a treadmill for exercise. I must also take exception to the requirement that the level of exercise be set at 75 watts. Such exercise load is clearly insufficient to assess impairment in a person performing heavy strenuous work. The requirement would be much better if stated in terms of an O_2 uptake.. A limit of 20 to 21 for the exercise O_2 uptake would be acceptable for evaluating coal miners.

Another comment to the Arterial Blood Gas Standards pertains to the O_2 uptake. The regulations should require all arterial blood gas results set for the exercise O_2 uptake. In this manner arterial blood gas results performed at different times and places can be compared. For instance, St. Francis Hospital does not report the O_2 uptake whereas the Appalachian Pulmonary Laboratory does report it. Because of this one cannot draw definite conclusions when the exercise test results differ. Light exercise commonly causes the PO_2 to rise; however, in a diseased lung the PO_2 will drop with further exercise. Because of the omission of the O_2 uptake the resolution of conflicting evidence is made difficult.

Under Arterial Blood Gas Studies, Section (II), the regulations require the addition of 9 mm Hg to the PO_2 for all results from the Beckley area. Such requirement is not based upon scientific evidence as to the effect of barometric pressure on arterial blood gas results. The O. P. Board assumes a PO_2 of 75 as normal for Charleston which makes a PO_2 of 66 normal for Beckley. I have not met any physician who believes that a PO_2 of 66 is normal for elevations under 3000 feet. At a PO_2 of 60, a patient in a hospital in Beckley will be placed under oxygen therapy. The U. S. Department of Labor will approve home oxygen equipment for a PO_2 of 60 or below in Beckley. Such a person would be entitled to a 15% award if the table of impairment is adopted.

The Table of Impairment will limit permanent partial disability awards for occupational pneumoconiosis to 30 percent for Beckley results. A 30% impairment will require a PO_2 of 51 for Beckley. A 40% impairment will require a PO_2 of 46 in Beckley. A 50% impairment will require a PO_2 of 42 in Beckley. The Commissioner must realize that humans cannot exist

with levels of PO_2 remaining in the forties. Certainly such individuals will be under oxygen therapy. The Board through such standards is clearly stating that Charleston results will be used to determine pulmonary impairment.

In the alternative, The Commission should adopt standards which assume a PO_2 of 81 to 85 as normal for Charleston. Such predicted normals can be found in common use by physicians practicing in the Kanawha Valley.

The Table for Impairment of Pulmonary Function totally ignores the level of PCO_2 in evaluating arterial blood gas test results. I personally know of no physician who would draw conclusions as to pulmonary impairment without considering the PO_2 and PCO_2. The past practice of the Occupational Pneumoconiosis Board was to consider both PO_2 and PCO_2. The standards promulgated by the American Medical Association, the U. S. Department of Labor and the Social Security Administration all consider both PO_2 and PCO_2. Although the standards state that the A-a gradient is to be considered the table totally ignores this test result. The A-a gradient cannot be calculated without the PCO_2 being used. The Commission must consider the A-a gradient in determining impairment. Tedder v. Workers' Compensation Commissioner, (July 18, 1984).

Arterial blood gas tests measure the transfer of gases between the lung and the alveoli of the lung. The tabled standards ignore the transfer of PO_2 and PCO_2 in the lung. A PO_2 of 60 with a PCO_2 of 30 is not the same degree of impairment as a PO_2 of 60 and a PCO_2 of 40. The tabled standards, if adopted, ignore the basic principle of blood gas exchange.

I respectfully request that these comments be considered and that the standards be revised consistent with my suggestions. If the standards, as published, are adopted in their present form, claimants for Workers' Compensation will be dealt the biggest set back in the history of the Workers' Compensation Act. If adopted in their present form, the standards will be challenged before the Legislature and the Supreme Court due to the inconsistencies which I have attempted to point out.

Very truly yours,

Don M. Stacy

Don M. Stacy
Attorney at Law

DMS:paf

Exhibit 22

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June 21, 1985

W. Va. Workers' Compensation
Fund
601 Morris Street
Charleston, West Virginia 25301

Attention: William Mitchell

Re: Proposed Rules of the Workers' Compensation Commissioner

Dear Mr. Mitchell:

Per' our telephone conversation today, please find enclosed a copy of a letter received by me today from Dr. George L. Zaldivar, M.D., Ltd. with his comments regarding your proposed regulations on evaluation of pneumoconiosis claims and exercise, etc. Line six of that letter I believe should read "Page 6, Item G" instead of "Page 4, Item G". If you have any questions regarding this letter, please contact me.

Very truly yours,

Charles G. Johnson

rr
Enclosure

GEORGE L. ZALDIVAR, M.D., LTD.
LUNG DISEASES AND INTERNAL MEDICINE
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3100 McCORKLE AVENUE, S.E.
CHARLESTON, WEST VIRGINIA 25304

June 18, 1985

Mr. Charles G. Johnson
Attorney at Law
Post Office Box 2332
Clarksburg, West Virginia 26301

Dear Mr. Johnson:

I have reviewed the proposed regulations to the Workers' Compensation Fund regarding evaluation of pneumoconiosis claims and exercise, etc. I find that they are essentially in agreement with established norms of the Medical Thoracic Society.. There should be no trouble at all with compliance except for one provision contained in Page 6, Item G. Analysis of blood samples can be performed within 30 minutes without any appreciable deterioration of the gases as long as the samples are iced. The 10-minute limit will cause some problem in facilities where the blood gas analyzing instrument is not in the same location as the exercising subject. Moreover if there happens to be a technical problem which requires some trouble shooting with an instrument, more than 10 minutes will elapse before the sample is measured. If the sample in question happens to be the exercising sample, it would be unfair to the individual to have to be exercised one more time for a second sample.

I have another objection to the regulation contained in page 4, Item G. The two largest FEV 1's should agree within five percent of each other rather than the seven percent requested by the Workers' Compensation Fund. The five percent requirement is the figure which has been accepted by the American Thoracic Society.

These are my only comments regarding these proposed regulations. I am addressing the same comments to Commissioner Mary Martha Merrett. I appreciate your request for comments.

With best regards, I remain

Sincerely,

George L. Zaldivar, M.D., F.C.C.P.

GLZ:nbc

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Exhibit 23

June 24, 1985

William Mitchell, Esquire
Legal Division
Workers' Compensation Fund
601 Morris Street
Charleston, WV 25301

Dear Bill:

I'm submitting these comments concerning the proposed rules and regulations governing occupational pneumoconiosis examinations.

I've found myself in general agreement with the comments of Dr. Gregory Wagner, M.D. and attorney Timothy Leach. Therefore, I will not repeat what they have said, except to emphasize that my experience with my clients confirms what Dr. Wagner had to say with regard to scheduling of testing in a way which respects the dignity of the claimants, and in striving for a "non-suspicious" atmosphere. I realize that the number of claims places a burden upon the laboratory facilities at St. Francis Hospital. However, despite my best efforts at preparing my clients for the tests they will receive, they often complain to me about the atmosphere of the testing. My major concerns were not touched upon by anyone else in the hearing, and perhaps they're beyond the scope of your rules. They are as follows: following a protest, I see no legal authority for treating the Board's findings as being any different from the reports of the Commissioner's medical examiners in injury claims; I respect the opinions of the Board members, but I do not believe that they are the supreme tribunal for deciding these cases; following the testimony of the Board members, I believe the Commissioner should review the evidence and make an appropriate award, in just the same manner that an award would be made in a protested injury claim; I have no objection to standardizing the method for computing impairment, but impairment has not been equated with disability in other cases, and I see no reason that it should be in occupational pneumoconiosis cases.

If the intent of all of this rule making is to make the process more "scientific" and to eliminate "subjectivity", then I think the Commissioner and the Board are deluding themselves. There will always be a degree of subjectivity; there probably should always be a degree of subjectivity. While I applaud the Board and the Commissioner for the efforts, and while I certainly appreciate the difficulty in arriving at reasonable rules, I believe the final product should leave an active role for the Commissioner and her legal staff in determining the final outcome of these cases.

Thank you very much for affording me the opportunity to comment on these proposed rules.

Very truly yours,

Jack L. Hickok

JLH/abp

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May 30, 1985

Exhibit 24

Mary Martha Merritt, Commissioner
Workers' Compensation Fund
P.O. Box 3151
Charleston, WV 25305

Re: Comments on Proposed Emergency Rules, Legislative Rule 23-1, Series I, Sec. 20.8

Dear Commissioner Merritt:

As a practitioner who regularly represents claimants before the Occupational Pneumoconiosis Board, as well as in other administrative proceedings, I have a few comments on the proposed Emergency Rules. Initially, I want to observe that an effort to standardize the basic methods of data collection is a worthy one and should assist everyone involved in the workers' compensation disability process. In particular, the standards for the pulmonary function study seem to me generally very appropriate.

At the same time, the standards for blood-gas study evaluation do not appear to me in some instances to be rational or supported by the best medical studies available. As I understand the research literature, and I am not a physician, a correction for elevation would be appropriate at approximately 1mmHg for each 600 feet of elevation. The proposed regulations greatly overstate the effects of elevation on blood-gas study results. This has the practical effect of making it difficult for testing to be performed in the higher elevations of the southern part of the state. Since a substantial portion of the coal mining population resides in those areas of the state with high elevation, this works a tremendous disservice to claimants.

The level exercise during the blood-gas study seems rather imprecisely monitored by the method used in the proposed Rules. Without the measurement of oxygen uptake, a mere measurement in watts will not necessarily provide an adequate base line for evaluation. Thus, I suggest that oxygen uptake be mandatorily measured and taken into account. Likewise, the five minute exercise period suggested in the regulations is not consistent with most of the medical literature, which requires at least a slightly longer period of time.

Finally, the percentages of disability contained on the basic table with regard to blood-gas study results seems entirely inappropriate. It is worthy of some note that a blood-gas study result which would be sufficient for a finding of total disability under the Social Security Administrations standard of inability to perform any gainful employment would only yield a permanent partial disability rating of 40% under the proposed Rules. This makes no logical sense in view of the fact that coal mining typically involves some significant physical labor. It also goes without saying that these standards are considerably more severe than those used by the Department of Labor in the federal black lung program. In view of the purposes of our workers' compensation statute, such stringent percentages of disability seem highly inappropriate and substantially biased.

One final general comment is that ultimately degree of permanent disability is not entirely suceptible to simply comparing certain functional study results to a table. As all competent physicians in the field would acknowledge, the assessment of disability is really a more complex process of evaluating all of the available data. Thus, any implication that an individuals degree of disability may be arrived at simply by comparing results to a table is not medically or morally justified.

I hope these comments are of some value in your evaluation of the Emergency Rules. If you have any question with regard to these comments, or desire additional development of these points, I will be happy to participate in that process.

Sincerely,

Grant Crandall
Attorney at Law

gc:ae